The Journal of the American Medical Association

Published under the Auspices of the Board of Trustees

VOLUME L. CHICAGO, ILLINOIS, JUNE 6, 1908. NUMBER 23.

Addresses

A NEW DUTY OF THE MEDICAL PROFESSION: THE EDUCATION OF THE PUBLIC IN SCIENTIFIC MEDICINE.

PRESIDENT'S ADDRESS AT THE FIFTY-NINTH ANNUAL SESSION OF THE AMERICAN MEDICAL ASSOCIATION, AT CHICAGO, JUNE 2-5, 1908.

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The welcome that is extended to us this year by this great metropolis is peculiarly grateful, for Chicago is the home station of this national Association. This great city should serve as an inspiration to us all, for it personifies the best of the American spirit—vigor, enterprise, and stability of purpose. This city, during the year has lost one of its most gifted citizens, one whose name was honored in all countries, an ex-president of the Association. All honor to the memory of Nicholas Senn, surgeon, writer, investigator, publicist, a man who did pioneer work in surgery and who was always ready to promote the interests of the medical profession.

The coming together of men of mutual aims must always be a subject of public interest. What is the meaning of this gathering of medical men from the length and breadth of this great country?

First: That individually they may be better able to care for the sick. Second: That they may collectively be better fitted to prevent disease. Third: That they may know men and their ways and by social intercourse may live fuller and broader lives. This Association is a great power for good or for evil. May its acts be guided by motives that are directed toward the health and prosperity of the people.

There are many subjects of which I should be glad to speak. Some of them have been considered by the Association in previous years. Medical education, medical legislation; the desirability and the question of the advisability of the medical profession taking an active interest in practical politics; the establishment of a national bureau of health; the abuse of medical charity, and the work of the Council on Pharmacy and Chemistry; all are subjects of vital interest. To-day I invite your attention to what I believe is a relatively new duty of the medical profession, that of judiciously educating the public in the present position of medical knowledge and in the advances that are being made in scientific medicine.

Until recently medicine has observed a silence as to its position and accomplishments that has made it unique among its sister sciences. A veil of mystery has surrounded it. Born, as medicine was, of fear, nurtured by superstition, it went through the centuries in twilight until it grasped the torch of science, which is beginning to illuminate its way. For long years medicine was only a handmaiden to theology. Faith, that inestimable gift to man, was the guiding star of medicine. Faith in "simples," in fetiches, in amulets, in poisons, in all the forces of Nature and in all the dread legion of phantasms that may be formulated by the mind, all these at times have held sway in medicine. Theories, hypotheses and "fads" ingenious and often containing a grain of truth have in turn dominated medical practice.

The profession has properly been conservative, because the truth in reference to health and disease has not been known. When the vital processes are looked at in the abstract, they are so marvelous and still so far from being entirely understood that it is little wonder they are surrounded by an air of mystery. The family practitioner of our grandfathers' days was a man who was greatly respected. He was discreet and silent. When he entered the sickroom he held his counsel. He appreciated the fact that he was in the presence of a human being afflicted with disease. Frequently he realized that he did not know either the natural processes of health or the natural history of the disease that he was facing; therefore, he was silent. The satirists have always pictured the practitioner of medicine as a venerable old gentleman who discreetly nodded his head in acquiescence or disapproval, who said vague things, and who encouraged his patient and the household to hope for the best and to prepare for the worst. I believe it is generally accepted that our profession has been deemed one that has been filled with charity and love of man, but it has not been conspicuous for its scientific methods.

During my lifetime I have seen, as have many of you, the development of scientific medicine. But medicine to-day, although a science, is still in part an art. Yet the sum of scientific knowledge in medicine is already very large, and as a science medicine has changed from the position in which it haltingly progressed until now it is advancing steadily along many lines.

The art of the practitioner during the past few years has not progressed so rapidly as the science of medicine. Rightly, the attention of the profession has been directed to ascertaining the causes of disease; hence the natural history of disease and its diagnosis have in large measure occupied the attention of the profession. The lack of training in scientific methods led men to reach conclusions from insufficient data; and when these men found that they were mistaken they were frequently swept to the other extreme—that of failing to accept anything of value unless it could be absolutely proved.

Meantime the art of the practitioner has languished. Proprietary medicines and nostrums have been too frequently used by practitioners, feeling as they have that "they may help and the patient wants them." Fortunately, experimental pharmacology at last has come to give us the truth, for by its findings we now know what really follows when a drug is given.

At present I believe that physicians are too conventional in their methods of treating disease. They have not paid sufficient attention to the alleviation of the suffering that accompanies some of the incurable maladies. Hydrotherapy, massage, electrotherapy, and particularly psychotherapy, as measures of relief, are permitted to rest in the hands of empirical practitioners, who but slightly understand the forces with which they are dealing. Human beings cling hard and fast to hope. They, fortunately, will rarely accept defeat. They constantly hope when in distress that aid will come by some intervention, physical, psychic or divine. This insistent demand for relief must be remembered by practitioners, but they should also recognize, as Louis did, that there is a natural course of disease.

Progress in science is always haltingly made. In medicine, which is but applied biology, the movement now is steadily forward; for through chemistry, biology and physics has come some knowledge that enables us to comprehend more clearly many of the vital phenomena of life. To-day we are in possession of certain irrefutable facts. It is unnecessary for me to catalogue to you the advances that have been made in medicine during this last generation; suffice it to say that it has caused a revolution. The application by Lord Lister of Pasteur's work in biology has made a new era in surgery. Chemistry and biology have made sanitation a science. Physics has enabled us to comprehend some of the vital processes. These contemporary sciences have illuminated medicine, but have medicine and surgery in themselves properly advanced? I think not. The field for advance is still open in clinical medicine and surgery. The human being, particularly when sick, has not been scientifically observed as thoroughly as he should. Valuable scientific facts may be obtained by the clinician in the out-patient department and wards of a hospital, or, for that matter, wherever he meets disease. The reason that more of these observations have not been made in hospitals is due primarily, I believe, to the lack of adequate training of men in scientific methods, but perhaps more largely to the general belief that scientific work in medicine must be done in a laboratory. It will be granted, I think, that in science the closer one can observe a problem the better. Should not the wards of a hospital be the real laboratories of medicine? To-day there is in the wards of hospitals a wealth of facts that is not recorded even when recognized. When the opportunities that are really within our grasp are fully utilized, then there will be still greater progress in medicine.

The three great professions, theology, law and medicine, have ever been the custodians of the spiritual, the material and the physical welfare of man. Medicine has been until recently in the background. The principle of theology has always been and always will be a matter of faith. The law has been a series of rules of action based on precedent and intended to secure equity and justice between human beings. Medicine, however, from being an art that ministered to the physical distress of man, has come into a broader field of activity. Intelligent men and women now recognize that faith is dependent in large measure on the physical condition of the individual. Our criminal classes, it is now known, are frequently physical degenerates. Moral obliquities are often caused by physical conditions. The material welfare of man is no longer in the hands of the law alone; for great epidemics, which destroy scores of people and invalid thousands, and which often paralyze the commerce of a part of the world, may to-day be controlled by a knowledge of contagious diseases.

The leech which served in the Crusades was a camp follower, a servant retainer. To-day the medical man who is responsible for the health of troops in the field has as high a responsibility in gaining success as the commander-in-chief of the army. The balance of power between the nations of the earth is maintained, in part at least, by the fitness of troops for service. This statement I make as applicable to every civilized nation. Its truth has been demonstrated in every modern war; never more strikingly than in the Spanish-American War.

A singular and unprecedented apathy, to be charitable, prevented the chairman of the Committee on Rules of the House of Representatives of the United States Congress from permitting the United States Army Reorganization Bill to come before that body. And this notwithstanding the fact that the bill was favored by the President of the United States, the Secretary of War, and the United States Senate, while a careful canvass demonstrated the fact that the bill was favored by a majority in the House of Representatives. But within a few weeks the chairman of the House has seen the truth and has allowed the bill to be passed and it has now received the signature of the President. We are at last in a position to meet, in part at least, the exigencies of a modern war.

No man, woman or child in the civilized world can be so situated, in labor, in travel, in attending schools or churches, in fact in existing, without being a debtor to the knowledge that has come from scientific medicine. This new phase of development in our profession adds greatly to its responsibilities. We are no longer a group of men and women who only soothe the brows of the afflicted and alleviate human suffering. Intelligent physicians or surgeons to-day know the natural history of some of the diseases with which they come in contact. Science has placed in their hands knowledge with which to control these diseases. They are public servants and their duty demands that they protect the individual against the ravages of disease as well as alleviate or cure. We, as the medical profession, are now in possession of truths that can help our fellow man. Is it not our duty to tell our fellow man? For we are told that "the gospel must first be published to all nations" (Mark 13:10).

Education has been, and I sincerely trust always will be, the cornerstone of our civilization in this country. No permanent advance will ever be made unless the people are educated to the truth. Laws are never effective unless the people want them to be enforced. I can not recall any great or permanent advance that has been made by force alone; and even when force has apparently succeeded, it usually leaves an unjust and more or less complex, unstable condition. Our Civil War blotted out a great evil, but it left a race problem that has not been satisfactorily settled. The "flare-back" of force usually defeats itself. I have an abiding faith in the public. I believe in it. When made to think, it reaches a wise solution of a problem. Observe—the key to safe public opinion is to make the public think. Unthinking people are less to be depended on than animals. If it is true, that the medical profession now has accepted facts that bear on the welfare of the people, is it not our duty to make them known? Judicious publicity is, I believe, a new duty of the medical profession to the laity. How can this be accomplished? There has already been established a Board of Public Instruction in this Asso-

ciation. This board, as well as all committees, should be answerable to the Board of Trustees; it should be representative and eminently judicial in character, and should have as advisors the experts in the profession.

In what medical subjects should the public be educated? It will be better to teach thoroughly a few important subjects than to attempt to cover too large a field. Let us not be blind to the fact that our scope of usefulness as physicians in dealing with the large disease problems depends in great measure on the cooperation of the public. We must have intelligent cooperation to make our work as effective as may be. Tuberculosis is still the most pertinent subject on which information should be given. The public should be informed that at present an early, thorough operation is the most certain way of curing cancer. The work already accomplished by the public in cooperation with physicians in controlling tuberculosis, ophthalmia neonatorum and scarlet fever comes to everyone's mind. The work that has been done in controlling yellow fever in Louisiana by the public and the medical profession is a striking example of educating the people as to the facts concerning disease. The various infectious diseases are obviously ones concerning which the public should be informed. The people should be educated as to the necessity of pure air, pure water and pure food; they should know the hygienic value of bathing. They should know that hospitals are provided not alone for the care of the sick poor but that knowledge of disease may be advanced. Take a familiar example in our social life: When it is recognized and brought home to the public that contagious diseases in children are to a degree unnecessary, that by proper sanitation and medical school inspection they may be in large measure prevented, then people will demand that their little ones in public schools shall be protected against disease, which often leaves them invalided and crippled for life. A child among the better classes to-day, until it begins to go to school, is usually free from contagious diseases, but the moment it enters a school it is subjected to dangers from infection which it rarely escapes. To be consistent in our present method of life we might as well expose our children deliberately, as they did in country districts in former times, when a child was sent to a neighbor's to get the measles, as it was a convenient time for him to be sick. The physical and intellectual development of our children is in the public mind, but the possibility of preventing them, by adequate precautions, from having infectious diseases is not appreciated. The sanitation of churches, places of amusement, vehicles of transportation, so intimately concern the public that the essentials of their proper care should be widely known. When the public is so informed, it will demand a reasonable degree of security from infection. But, it may be said, all the truth is not known regarding these subjects; true, and, therefore, we must be very sure that we tell only the truth.

Commercial houses within a few years have found that it pays to care for their employés. It is true that in some instances a spirit of altruism has led to this action, but practical experience has shown that a higher and a better type of work comes from employés who are intelligently cared for. In one commercial house in Boston a physician gives his professional services to the employés as he might to a hospital clinic. If any salesman falls below in his sales he is directed to appear before this physician. A careful examination usually reveals some adequate physical cause that accounts for the individual's lack of energy. Anæmia, indigestion, constipation, incipient tuberculosis are recognized and treated, and the salesman is frequently restored to his full earning capacity. Intelligent merchants recognize that the better care that they take of their employés the better service will be rendered in return. Loyalty is a force the value of which can not be overestimated, and it is secured and preserved by employers who are really interested in their employés.

The czar-like dictation of labor unions which arbitrarily limits the amount of work that a man or woman is permitted to do is a force that seems necessary to meet the greed of capital, which in the past often cast aside its employés like worn-out garments when they were no longer useful. I hope that labor unions in the future will demand not that the number of hours and the productiveness of the individual shall be limited, but that capital and labor shall protect the individual against disease, in order that he may have the highest degree of productiveness. Throughout the world there are cooperative business establishments in which the interests of the employés are protected in a measure, but this protection is usually financial. If the employer and employé could recognize that the preservation of the working capacity of the employé is of even greater importance than a 10 per cent. dividend on a few hundred dollars saved, a great mutual gain would be secured. Business men should see to it that their employés are informed as to the proper methods of life; protection against disease by employers is not alone a duty on their part but a real financial investment, as recognized in the work of the Welfare Department of the National Civic Federation. The medical profession must recognize that cooperation with business men in these public duties is a new duty of citizenship.

Who among the public should first be educated? Those who are leaders in the community; those who are in positions of responsibility—national, state, city and town authorities, trustees of hospitals and schools—they should first be informed as to the facts concerning disease. Experience has shown that the lay public takes a keen interest in everything concerning medicine and its progress. The success of nostrum vendors has demonstrated their skill in appealing to the sentiment of the public. The Board of Public Instruction should always appeal to the reason of the people. Great discretion should be used in selecting the subjects in which the public should be educated. Experience would teach such a board what not to do. "Don't" should be the motto for this board when in doubt as to educating the public.

What are the means by which we may reach the public? Newspaper articles on selected subjects, giving facts concerning a given disease, but not the treatment of disease, should be furnished the press. These articles should be signed and published under the authority of the Board of Public Instruction. That these articles should be judiciously edited must be apparent to all. No statement issued by the Board of Public Instruction should fail to be the absolute truth. Irreparable damage to the medical profession and to the public might be done by unwisely exploiting mooted subjects. It would be unfortunate if this new duty of educating the public in medical matters were taken up indiscriminately by the members of the medical profession. It may well be appreciated that this new duty may be considered a legitimate means of advertising the individual. But self-seeking for the medical profession, or for any individual member of it, would be quickly recognized by

the public. Discredit, then, would be brought on the profession and on the individual.

Another means of reaching the public might be by magazine articles. The facts concerning certain diseases might well be given to skilled lay-writers, who should be paid for their services. A lay-writer has the art of presenting a subject to the public in an attractive manner. For example, let the subject of animal experimentation be investigated by one of the magazine writers of this country. Open wide the sources of information to such a writer. Then let a series of articles be published in order that the public may know the truth as to the inestimable benefits that have come from animal experimentation, not to men alone but to animals as well. Reprints of such articles, pamphlets and circulars of information, would be a powerful means of educating the public. Let circulars of information regarding the subject of animal experimentation and of vaccination be placed in the hands of every legislator in this country; in fact, in the hands of every citizen who is misinformed as to the truth. In the event of a great epidemic of yellow fever or cholera, let a pamphlet containing the facts concerning the spread of the disease be sent to every householder in the district. Every physician would be then obliged to know the facts. This leads me to call your attention to one of the obvious effects on the medical profession of educating the public. It is to be regretted, but it is true, that there are ignorant practitioners in our profession. If the public is informed as to the facts concerning an individual disease, a physician will be forced to inform himself as to the recent advances in that disease.

To my mind, one of the most important movements in the Association is the establishment of county graduate schools in the various states. I can conceive of no better stimulus to this work than the adoption by the county schools of a plan by which one of its members shall inform the public, once a year, as to the facts concerning some selected disease.

The work of the Council on Medical Education is progressing. Dilapidated medical schools are disappearing. Why? Publicity. When the public recognizes that in order to become a well-educated physician certain requirements are absolutely essential, then, and not till then, shall we have true reform in medical education. I commend to your consideration the work of the Council on Medical Education. It is dealing with the tap root of the tree of the medical profession. Its reforms must not be too radical. There are still isolated areas in this great country that can not support the best educated physician. But the American Medical Association at least can stand firmly for safe, sane and sound practitioners. To my mind, one of the most important functions of the Council is that it has established a monitorship over medical schools. Let the Council give to the profession, and to the public if necessary, the facts concerning the various medical schools of this country; publicity will do the rest.

Free lectures to the public on selected medical subjects constitute one of the most useful methods of spreading information. These lectures should be given by men who are authorities in their subjects; and the experiment as it has been tried in various parts of the country, particularly in Chicago and at Harvard, has been a success. At Harvard during this last winter the lectures have been so popular that at times a hundred or more people have been turned away, being unable to gain admission. A wide range of subjects has been covered in these lectures. Many factors influenced the attendance: First, the subject selected; second, the individual who gave the lecture; and third, the condition of the weather. Sunday afternoon lectures were better attended than Saturday evening lectures. Inclement weather markedly diminished the attendance. The most conspicuous factor that influenced the attendance at the lectures was the cooperation of the press. For example, when a lecture was given on a subject of great public interest, then if the press devoted from a half column to three columns to noticing it, the stimulus to the attendance at succeeding lectures was marked. Personally I have had nothing to do with these lectures, but I believe that they can be made effective almost in proportion to the cooperation of the press.

The medical profession, and many of the public, are afraid of the press. Whether this position on the part of the public is justified or not need not be discussed. I have never had occasion to appeal to the press for assistance and cooperation in any public measure without receiving hearty, but at times, to my mind, indiscreet assistance. The position of the press, as I understand it, is that it is the judge as to what constitutes news. Newspapers will publish what they think the public wants to know, but not what we think the public ought to know. They assume, quite properly, the right of decision. The greatest power that we can have to diffuse information is the public press. Let us be frank with it, and I believe that it almost invariably will be honest with us. *Collier's Weekly* and the *Ladies' Home Journal* have been wonderful forces in diffusing the truth.

There yet remains, ladies and gentlemen, a means of educating the public which I believe will be the most potent of all. This rests in the hands of the family physician—the man who has the care of the household, who watches the growth of the children, who sees the father and mother bend under the strain of life, react and again assume their work, the counselor of the family—he it is who can carry into the homes of this country the judicious truth concerning disease. Well-educated people have recognized that the wave of specialism which threatened to obliterate the family practitioner was dangerous for the welfare of the whole. The trouble is that we all consider ourselves, when ill, as peculiar examples of some disease, when, as a matter of fact, all we need is the counsel and advice of a sound-minded family practitioner who has known us and our families for many years. This does not in the least deny the great advantage of having the benefit of special knowledge in reference to a special subject.

There is a distinct reaction, I believe, against the obliteration of the family practitioner. The well-educated family practitioner now has a new duty. He it is who should be the instructor of the family. This is particularly true in relation to the subjects which in medicine can not with propriety be taught the public in masses; these subjects may be taught most appropriately to the parents and, if need be, to the children by the physical counselor of the family.

A great duty rests on the practitioner of medicine today. He must not shirk it; he must rise to his new burden, accept it and bear it. The reward to the medical profession for taking this new burden of judicious publicity in medicine will be a broader life for the practitioner, a greater consideration for his fellow man, better citizenship and the recognition by the world that the medical profession is a great public benefactor.

22 Newbury Street.

ON SOME RELATIONS OF THE PHYSICIAN TO THE PUBLIC. DUTIES AND OPPORTUNITIES.

ORATION ON MEDICINE AT THE FIFTY-NINTH ANNUAL SESSION OF THE AMERICAN MEDICAL ASSOCIATION, AT CHICAGO, JUNE 2-5, 1908.

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When, a year ago, you honored me with the invitation to deliver this address, it was my intention to speak on some specific problem in medicine. On further reflection, however, it has seemed wiser to take advantage of this occasion to express a few thoughts on some of the public relations of the physician—his duties and his opportunities.

The physician has always been and, from the very nature of his calling, must be, more or less a public character. In the smaller community he is a public character in the sense that he is a common source to which the citizens repair for advice, not only concerning their physical and mental but often also their material well-being. In the larger centers of population he is a public character in that it is on his direction, on the results of his studies and research that the community depends for the organization of those more general, broader sanitary measures which are demanded to meet the exigencies ever arising and multiplying with the growth of large urban communities.

In the early days of this country, when there were no large cities, the physician exercised this influence individually among his patients, as the family friend and adviser. With the growth and development of the nation, the great relative increase of the urban population, the multiplying complications of our life on the one hand, and on the other, with the enormous advances made in the knowledge of the nature and sources of disease, of the relations of physiology and pathology to other natural sciences, together with the rapid progress in the art of medicine and surgery—with all this growth, this expansion—yes, one may almost say, transformation, the functions of the physician have considerably broadened. In the old days the tree of medicine was a small affair; its roots ran wild and almost uncared for, and the physician gathered and used its fruits as they grew. The art which he sometimes showed in the employment of these fruits, such as they were, was indeed, remarkable. Of the tree and its roots which contained the sciences of anatomy and physiology and pathology, he knew little. But through the years, patient students have gained wonderful knowledge of the nature of that tree; of the sources from which it draws its strength; of the extent and ramifications of its roots; of their intimate and intricate entanglement with those of almost all the other denizens of the garden of science. And with the multiplication of these researches and discoveries, the tree, nourished and cared for as never before, has undergone a great transformation; it has put forth new branches; new shoots have sprung up about it; and the fruits which it bears for the art of medicine and surgery surpass, almost, that which one might have imagined but a few years ago.

The development of hospitals, of laboratories, of institutions for the study of the ever increasing ramifications of anatomy, physiology and pathology—ramifications leading directly to botanical, physical, chemical and indeed, even to mathematical problems—calls for an increasing body of students—physicians who accomplish their function, and a most important and radical function it is, in the study of special scientific problems—a life widely different from that of the country doctor of old.

Moreover, the advances and extension of the medical and surgical art are such that it has long been impossible for any one man to develop equal proficiency in all its branches. In all large centers of population, therefore, certain men have sought to devote themselves to special subjects in order that they may, in this manner, acquire a greater proficiency, and do more perfect and thorough work. This is natural and proper; it is only by the labors of such special workers that any art can be perfected.

At the same time, the crowding together of the population into great cities, a tendency which is to-day especially striking, has brought with it new dangers. The poisoned well may affect one or two families at most. The poisoned water supply of a great city may affect thousands. Scarlet fever in the country town has few victims and may be more or less readily controlled. In congested tenements populated by ignorant and suspicious aliens who do not understand the language of the people among whom they live, it is a widely different problem. These new dangers involving the broad questions of public health and prophylaxis, questions of drainage, of water, of milk and food supply, of the care of contagious diseases — these demand the individual attention of men who have had special training. The great questions of water supply and of drainage can not be attended to properly by the engineer alone, nor can the protection of the city from epidemics of infectious disease safely be entrusted to boards of health consisting only of public spirited citizens; both are dependent on the advice and assistance of the trained sanitarian.

In almost all large enterprises to-day the aid of the physician is sought, as for instance, in the organization of the relief departments of great railways and corporations and in large department stores. The health and comfort of the employé and the profit and success of the employer are indissolubly interwoven. But the distinctly public duties of the physician are by no means confined to exigencies arising in large centers of population. There are, in the history of mankind, examples of the gradual or sudden desolation of extensive districts by the insidious influence of diseases which we now know to be in great part preventable.

A recent historian[1] has brought forward as an illustration of the possible influence of a preventable endemic disease, the history of the decadence of ancient Greece.

To-day, as is known, malaria is the scourge of the Hellenic peninsula. Endemic throughout the land, it saps the vitality, the strength, the virility of the people, carrying away, annually, its thousands of human lives.

Through the shadows of departed years the light of ancient Greece shines with undying luster. The language, the poetry, the art, the philosophy, the ideals, the spirit of beauty, have been for ages and are to-day the inspiration of mankind. The sounding hexameters of Homer, the breath of

Him, Æschylus, ancient of days, whose word is perfect song,[2]

the creative genius of Phidias, the eloquence of Demos-

1. Jones, Ross and Ellett: Malaria. A Neglected Factor in the History of Greece and Rome. 12mo. McMillan and Bowers, Cambridge, 1907; Jones, Janus, Harlem, 1907, xii, 690.
2. Swinburne: The Altar of Righteousness.

thenes, the wisdom of Pythagoras, of Socrates, of Plato, of Aristotle, beckon across the centuries to remind us that all the wealth of modern worlds has given birth to no loftier thoughts, to no higher ideals of life and beauty than those which sprang up by the waters of the blue Ægean. And to-day as ever, Pallas Athene *"née intelligente chez les Grecs heureux,"*[3] dominates the elect of the world. "The garners of Sicily are empty now, but the bees from all climes still fetch honey from the tiny garden plot of Theocritus."[4] There is no trace in the literature of the early days of ancient Greece of the scourge which has since laid waste the land. Malaria appears to have been introduced into Attica during the fifth century B. C. Although the conditions of the soil and the probable presence of anopheles must have been favorable for the spread of the disease in the greater part of the Peloponnesus, yet the first mention of its occurrence is, apparently, in The Wasps of Aristophanes (422 B. C.). But the writings of the fourth century B. C. give evidence that the disease had gradually spread until, finally, it became chronic and endemic, prevailing among the children, giving rise to cachexia, conquering of the peninsula. And step by step with the spread of the disease, the historian traces the beginnings of that fatal degeneracy which marked the fall of the race. A spirit of criticism, of jealousy, of pessimism arose; discord, disunion and civil strife followed, and in a few centuries the earthly abode of the gods was a mere tributary of the Roman Empire. Poisoned by the subtle influence of a preventable disease, the spirit which had produced the science, the beauty and the art of ancient Greece faded from the world.

True or fanciful as this suggestion may be, it is hardly an exaggeration of what a preventable infectious disease may do. And one can but ask himself what might have been saved for the world had we known then what we know now?

To-day, with an educated and specially trained body of medical men, assisted by an enlightened government, the Italians have reduced the mortality in the fever-ridden parts of their neighboring peninsula two-thirds in five years; and the task is but begun. Already in regions where agriculture was abandoned, work is being renewed and a fresh life is springing up.

There is a modern example which touches us closely, of a great undertaking—one of the greatest undertakings that man has ever essayed—which depends for its success largely on the labors of physicians. I refer to the digging of the Panama Canal. The French, with unexcelled mechanical skill and energy had failed—failed largely because of the dreadful and continued mortality among the workmen. The United States took up the work. In the meantime there had come the great discoveries of Ross and Grassi and Bignami and Bastianelli, completing those of Laveran, concerning malaria, and the vital and illuminating contributions of our own Reed, Lazear, Carroll and Agramonte, with regard to yellow fever. And to-day the Panama Zone compares favorably, as to sanitary conditions, with the more healthy parts of this country. Yellow fever, though on all sides, is here unknown. It is the greatest triumph of preventive medicine that the world has ever known.

3. France, A.: Discours prononcé à l'inauguration de la statue d'Ernest Renan à Trêguier, 12mo. Paris, 1903, Calmann-Lévy, 40.

4. Lowell: Harvard University, A Record of the Commemoration, etc., of the Foundling of Harvard College, 8mo, Cambridge, 1887, John Wilson & Son

And to whom is this due? A few months ago I had the good fortune to listen to an account by a distinguished foreign physician, of the work at Panama whence he had just returned. After speaking with warmth of the general conditions, he said impressively, "The successful completion of the Panama Canal *depends on one man.*" If the measures admirably planned and carefully carried out by Colonel Gorgas fail; if there is a moment's relaxation, if the old epidemics recur, it will be impossible to find laborers, and the work will fail again as it did before. And he did not exaggerate. It is on the success of these prophylactic measures which can be designed and carried out only by a specially trained sanitarian, that the completion of this great undertaking depends. It is to the lasting credit of our country that medical men should have urged and our President recognized the importance of the appointment of a physician on the Panama Commission.

There is yet another opportunity for public usefulness in this country for which the training of the physician is peculiarly valuable. I refer to the career of the legislator. One has but to consider the few examples already mentioned of the various ways in which medical knowledge and skill are of value to the state, to realize how useful the education of a physician may be as a preparation for public life. The life of a physician, not only prepares a man to treat wisely those more specific and practical questions of which we have just spoken; more than this, no career brings a man into closer connection with his fellow; no career gives him a more intimate knowledge of mankind; no career is more fitted to develop those qualities of charity and tolerance so vital in our best public servants. It is true that medicine and public life are equally jealous mistresses, and that few men can serve both as they would and should be served; but we have, in this country, hardly realized how valuable a preparation for public life is the training and career of the physician. One has but to look to the prime minister of our sister republic in Europe for a most brilliant example of what may be accomplished in modern political life by the man with a medical training.

It is doubtless true that the development of the purely scientific branches of medicine together with the multiplication of specialties which is everywhere observable in our large centers of population, have resulted in a relative diminution of the number of family physicians in the old sense of the word, and have, in so far, limited the public influence which the old fashioned general practitioner formerly exerted among his patients. But on the other hand, there have developed many wholly new problems which are calling the physician more directly into public life. If perhaps, the wholesome influence of the family doctor is less felt in the community than it once was, yet the opportunities for public service which are to-day before the physician, nay, his public duties, have greatly increased.

The knowledge gained during the past forty years has taught us that we can accomplish far greater results by preventing disease than by attempting to promote recovery from that which has already started; it has taught us that a large proportion of the gravest maladies from which humanity suffers are acquired through our ignorance and carelessness and unclean habits; and with regard to many of these diseases, it has given us efficacious methods of prevention. Prophylaxis is the watchword of the day. We have in our hands

the means, not only of delivering ourselves from dreaded epidemics of exotic pestilence, but of preventing largely the terrible yearly sacrifice to the contagious diseases which have for ages been endemic among us. But this deliverance can be brought about only through the united and conscientious efforts of the medical profession.

This is an age of combination and concentration and cooperation—of large associations and undertakings. The great growth of this Association which we have known of recent years is but a feature of the times. Despite the increasing diversification of our interests, we physicians have been brought closer together than ever before—and to our lasting benefit. For wherever medical men come into social contact one with another they can not fail to feel a warm pride in their calling—they can not fail to be impressed with the earnestness, the simplicity, the honesty of the character and aims of their fellows—with the realization that, despite differences in natural endowment, in advantages, in surroundings, in temperament; despite the fact that we are all human, and possess our fair share of human frailties, we are with singularly few exceptions, all working earnestly, as best we can, in the search of truth and for the good of humanity. Association and acquaintance deliver us from doubt and suspicion and jealousy—those all pervading daughters of isolation. Our great Association has further enabled us to distribute to all parts of the country, an admirable journal, which is a monument to its honest, faithful, fearless editor, so that the practitioner in the distant rural community may reap, at the earliest moment, the benefits of the discoveries of the student of the urban laboratory. It enables us to lay with greater force before local and national legislatures necessary measures of sanitary reform. It helps us to combat more powerfully the many forces of evil which, from time immemorial, have battened on the credulousness and superstition of the invalid. It is helping us to teach the public with greater impressiveness the necessity of high and uniform standards of education for the physician and requirements for the license to practice medicine.

Here we are then, a great body of medical men, united in an Association, not for our personal, financial, political or social advancement, but solely in the cause of truth and for the benefit of humanity—the deliverance of the public from disease. Nevertheless, the work before us is unending, the obstacles, great. But why should there be obstacles? Why have not the recommendations of this Association the force of law? Why is it that, when laws themselves exist, all our strength is needed to secure their enforcement?

The main cause, I take it, of all this is the lack of comprehension on the part of the public of the nature and aims of medicine and of physicians. If the public had but a small part of the information which is ours, how many thousands of lives might be saved every year! The community as a whole, has a very vague understanding of the nature of the medical sciences and arts. Under these circumstances can we expect such a public to sympathize with and blindly follow all our recommendations? Surely not.

In how many ways is this ignorance shown! To take but a few examples:

We know well enough that the one successful way to prevent the spread of many contagious diseases in the large community is the establishment of well-conducted hospitals in which the patients may be isolated as soon as possible after the breaking out of the malady. By providing for the early segregation of these patients in institutions offering to the sufferers the most enlightened care, the community confers a blessing of incalculable value on the families of rich and poor alike. Such hospitals, moreover, afford the only opportunity for the proper instruction of students of medicine in the diagnosis of those contagious diseases, the early recognition of which is of such vital importance to the public. Furthermore, we know that such institutions are absolutely without danger to the neighborhoods in which they are situated. The records of the city of Boston which possesses a model hospital for contagious diseases, shows well what a blessing such an institution may be to the community.

But I know another great eastern city where there has been, until recently, no provision whatever for the care of contagious diseases. More than this, some years ago the state legislature passed a law forbidding the erection of a hospital for contagious diseases within the city limits without a two-thirds majority of each branch of the city council, which rendered the erection of such a hospital almost impossible. To us this law seems wicked and brutal in the extreme—worthy only of savages. And yet the measure was passed by men who were not inhuman; they were simply ignorant. And it is difficult to remedy such ignorance by immediate argument. The vehemence which we are too apt to display only excites the sensitiveness of the legislator—and where passion enters in reason passes out of the door.

I know again a great city, the water supply of which is open to serious contamination. At a period during which extensive and radical public improvements were under consideration, a meeting was held of a committee appointed to take counsel as to those steps which should be taken to improve the water supply. Before this committee there appeared a number of medical men and sanitarians, including representatives of the state and city boards of health—men who had made a careful study of such matters. These men urged that steps be taken to provide ultimately for a proper system of filtration. After they had spoken, a gentleman connected with one of the city departments, an engineer, who had the last word, made a long address in which he denied with passion that the water supply was or could be contaminated. He ridiculed the statements of the sanitarians and physicians, opposing to them the frequently repeated and wholly unfounded assertion that they were dealing with theories—he with facts. The committee, by an overwhelming majority, dismissed, for the time being, the question of filtration. The city, fortunately, has not yet suffered from the epidemic which may come at any time. The men on that committee were not unintelligent; they were simply ignorant of the medical aspect of the question at issue, and were utterly deceived by a plausible argument filled with pseudo-scientific statements which the orator himself appeared not wholly to understand.

A few years ago I happened to meet, on the railway, a high official of a large manufacturing concern situated in a most malarious district. At that time little had been done to protect the employés, who were nearly all victims of the disease. "This is a healthy enough place," said the official, who lived in a well-netted house in a dry part of the town. "The trouble with the people here is that they take too much quinin. If they would stop taking quinin they would stop having malaria." And this was a really intelligent citizen!

How often again do the trustees of large hospitals generously seek to "protect" the patient from what they regard as inconsiderate and unnecessary scientific zeal, by closing the wards to instruction and denying admission to student assistants, thereby blindly cutting off from the sufferer the greatest boon that they could offer him—the most enlightened observation and care. How far are these good men from a comprehension of the true significance and value of the hospital to the patient and to the public!

There could be no more striking example of the ignorance of a well-meaning part of the community than the agitation of the so-called anti-vivisectionists whose publications, shocking and wicked and brutal as they are misleading, are yet believed by some misguided people. But these dreadful publications, inspired for the most part, by individuals who probably mean to be honest, are but the offspring of fancy and prejudice, born themselves of an utter ignorance and misconception of the aims and significance of medical science and of the character and ideals of the student.

These are but a few examples, but they are enough to show how little a considerable part of the general public —often individuals in whom we might, indeed, expect more enlightenment—understand the nature of medicine or sympathize with the generous efforts of the physician and the investigator. We can hardly expect people with ideas such as these to heed the advice of a body such as ours. These considerations should bring home to us the realization that the education of the public is a most vital duty, not only of medical schools and associations, but of each separate member of the medical profession. On each one of us there rest public duties of the gravest import. On the sum of our individual efforts depends the success of all the great sanitary reforms of the future.

On a few of the opportunities which come to the physician of to-day, in his intercourse with his patients and his friends, to perform some of these public duties I would especially speak.

Many misconceptions concerning the nature of the healing art arise from that strange atmosphere of mystery which so often surrounds medicine. To physicians there is nothing mysterious or supernatural about medicine. We recognize that medicine is a practical art resting on a basis of scientifically proved facts; we realize that our knowledge amounts to an infinitely small part of that which we would know and hope some day to know. We know that there is an enormous field for study. We practice our art simply on the basis of what we have learned from the experience and study of those who have gone before us, and on what we acquire daily from our own study and experience and reason and common sense. But from time immemorial the art of medicine has been connected in the mind of man with the supernatural and the divine. Medicine has been regarded rather as a matter of faith than as an art resting on a scientific basis. People speak of their "belief" in this, that or the other "system" of medicine, and on the basis of such "belief" recklessly hand over their bodies to some individual who asserts that his practice is based on a theory or system revealed as by inspiration to some fortunate mortal, perhaps yesterday, perhaps two hundred years ago.

This blind faith in systems is not so far removed from the faith of the savage in the magic of his medicine man, and when we turn to our friends who with such delicious innocence and ingenuousness have termed their medical faith a "science;" when we see them, as we sometimes do, braving with fanatical contempt some dreadful infection only to find themselves in the end the prey of the fatal poison of reality, we seem almost to see the medicine man standing with a little group of determined warriors in the midst of the circle of fire, breathing defiance even as he falls, his "invulnerable" mantle pierced by a score of deadly bullets.[5]

Again, there is a very general idea among people that the physician is by practice, if not by nature, disingenuous; that while he may be trusted to do his duty as he sees it, to his patient, truth is not to be expected of him. Scarcely a week goes by that I am not asked by the friends of a patient to tell a deliberate falsehood.

From these misconceptions we physicians can not, I fear, be regarded as wholly guiltless. We know how few specifics there are in medicine. We know that by simple physical and mental means we accomplish our main results. But, alas, how easy it is to accomplish these ends by misleading means! How easy it is to write the prescription which we know is of itself of little value, which we should never dream of taking ourselves, and to allow the patient to believe that it is this that has "cured" him of the transitory, self-limited malady! How easy it is by assuming an impressive air—and if there be anything under the sun that we physicians should pray to be delivered from it is an impressive air—to make the patient feel that we possess that mysterious power which has, perhaps, come to us from a long line of medical ancestors, the power which enables us at a glance to divine that which might never be revealed to our uninspired colleague.

The same results can be achieved without misleading the patient one iota. It is perfectly possible to treat patients as we would be treated ourselves. It is scarcely likely that they would be treated otherwise. It takes a little longer; it involves a little more explanation; but how much safer and surer is the result!

The oracular method is easier, but I fear that some of us have forgotten that, by a special decree of the Olympian Assembly, Asklepios was forbidden to trade in oracles.[6] That it is necessary for the physician to tell untruths is a myth founded on kindness of heart, pure and simple—but an unreasonable and a weak, a short-sighted and a misguided kindness of heart. Truth is as sacred a duty in medicine as anywhere else in life. As a matter of policy, as Cabot has pointed out, it is almost a necessity, for whatever may be true in other spheres of life, *the doctor's lie is always detected.*

It is, of course, obvious that truthfulness in medicine does not mean that it is always necessary to tell the patient that he has a fatal disease if he does not ask you the direct question. Nor does it forbid the physician to seek and keep his eye fixed on the cranny of hope which may usually be found, as earnestly and sedulously as would the patient himself. Few events in human affairs are certain. A few years ago I had under my care a patient who had had one tuberculous kidney removed some years before. She had then bilateral pulmonary tuberculosis, tuberculous pleurisy, tuberculous peritonitis and tuberculosis of the remaining kidney. The temperature for weeks had been constantly elevated, the

5. I have seen in the possession of a friend, the "invulnerable" mantle of an Indian medicine man who with a small group of warriors fought until the last man had fallen, although completely surrounded by troops. The garment was pierced by many bullets.

6. Lucian: Lucian's Dialogues, translated by Howard Williams. 12mo. London, 1893. Geo. Bell & Sons.

pulse rapid and feeble. She seemed *in extremis*. Had I been asked, I should have said that she had probably a few weeks to live. She asked me calmly if she were going to die or whether there was any chance of recovery. I answered her truly that she was very ill, that the outlook was not good, but that there was always a chance for an arrest of the disease, and that it would be wrong even to think of giving up the fight. For two years that patient has been free from fever, to all outward appearances well, and to-day she is actually working for her living.

Few patients ask a physician the direct question, but when they do they should be told the truth as we should tell the truth in every other sphere of life.

I believe sincerely that most physicians do so, and that the annoying general suspicion of the doctor's statements is ill-founded; but I know a number of good men who too often allow their kindness of heart to get the better of their good judgment. I know nothing sadder, nothing more hopelessly demoralizing, nothing surer to upset the mutual confidence of a family than the entrance of the "white lie" into the household or the sick-room. Few of us are unfamiliar with the hopeless uncertainty of the invalid who comes finally to realize that a tissue of falsehood has been spun about him; that on no one can he rely. The affection of those about him he may not doubt, but of their sincerity how can he again be sure? There is no more pathetic picture in the experience of the practitioner of medicine.

The physician has no higher public duties than *the duty of simplicity, the duty of the avoidance of mystery in medicine* and *the duty of truthfulness*. Toward his patient I know of no more vital duty than *the duty of optimism*.

There is another widespread misconception to combat which is an important public duty. I refer to the too common feeling of the public that, with many of us, the practice of medicine is purely and simply a trade. Viewed in this light the practitioner can but be often an object of suspicion. His methods and his word are doubted. The best part of his influence is gone. There are few, if any, physicians who practice medicine as amateurs. The inconveniences which every earnest doctor must endure are always considerable. Most physicians are obliged to depend on their fees, as most clergymen are obliged to depend on their salaries, for their daily bread. They must provide, not only for themselves, but often for their families. There are many men to whom, for more reasons than one, the material gains from practice are an important—a highly important—element in life. There are many men, teachers, scientific workers, men who desire to limit their practical activities, as well as men who have achieved such position that they are obliged to restrict or select from the overwhelming practice which seeks them, who, for these very reasons, rightly demand large fees. If the public insists on having their services rather than those of the many other good men in the profession, they should and do understand that they must pay a larger honorarium. This is perfectly right and proper. But there are very few physicians who enter into the practice of medicine with the idea of laying up wealth. There are happily exceedingly few to whom medicine is a trade. The man to whom the scientific and humanitarian aspects of medicine mean nothing; the man who practices solely for what he can make; the man who finds no interest in medicine outside of that which he puts in his pocket; that man is on a level with the conscienceless quack, and the sooner he leaves the profession the better for it and for the public.

There exists, however, a tendency among some of us—men who are, for the most part, honest and honorable—which is, it seems to me, below the dignity of our calling. I refer to the tendency to regulate one's fees according to the means of his patient. It is well that a man should have a more or less definite estimate of the value of his services, a fixed maximal charge for work of a certain character, a charge which, in justice to himself, he should always make, unless he has reason to believe that the patient is not in condition to meet it. He will often, with a large proportion of his patients, perhaps, be obliged to accept less than the value of his services. But that he should speculate on the wealth of the rich, that he should demand exceptional recompense from the millionaire because of his wealth, is to make medicine a trade; is to bring distrust and suspicion and discredit on his profession; is to put a serious obstacle in the way of all the great reforms which we as physicians and sanitarians hope to accomplish.

Another duty, the grave public import of which comes to us with much force to-day, is the instruction of the public with regard to the necessary measures of prophylaxis in connection with infectious diseases. As has been demonstrated again and again, general laws and sweeping public measures are of themselves insufficient to prevent the spread of such diseases as malaria, yellow fever, plague, cholera and typhoid fever. It is only through the cordial and general cooperation of the practicing physician with an enlightened public that efficient prophylaxis can be established. It is impossible here to enter into particulars as one would. We can consider but a few examples. The great accomplishment of the medical department of our army in eradicating yellow fever from Havana is fresh in our minds. This work was rendered possible by the recognition of the fact that the causal element of yellow fever exists only in the body of the patient suffering from the disease and in the mosquito (*Stegomyia fasciata*) which has fed on the blood of the sufferer. The mosquito can acquire the infectious agent only from an individual affected with the disease, and the human being can acquire the disease only through the bite of an infected mosquito. Though a great deal can be accomplished by general measures directed toward the destruction of mosquitoes and the removal of breeding places, it is impossible, by these measures alone, to overcome an epidemic. The problem, it was realized, could be met satisfactorily only by sterilizing, as it were, each individual case of the disease. If each case of yellow fever could be successfully protected from mosquitoes, one might be sure that, from this case at least, there could be no spread of the disease. And so, by the cooperation of local physicians with the efficient medical corps of the army, every suspected case of yellow fever was reported. The houses of patients, together with those in the immediate neighborhood, were promptly netted and the mosquitoes already there were killed. In seven months the disease was banished from the city. Almost equally brilliant was the work in New Orleans, where a dreadful epidemic, already well under way, was eradicated by a period at which otherwise it would probably have been at the summit of its ravages. This problem, it is true, was an essentially simple one, once the fundamental knowledge of the manner of entrance and spread of the infection had been acquired. In its broader lines, however, the problem is the same in connection with many of the gravest and commonest af-

fections with which humanity suffers. In malaria the task of prophylaxis is more difficult because the disease is so widespread, and for the reason that, because of its very mildness, many cases pass unnoticed. And yet how much can be done, and is being done in some parts of the world, has already been mentioned. In typhoid fever the problem is yet more difficult; in tuberculosis more so again.

But in all these diseases, as soon as the physician, the public and the government unite and work hand in hand to prevent, so far as possible, the spread of the infection from the individual case, enormous inroads can be made into the mortality. In all these conditions the infectious agent dies sooner or later outside of the animal body and is disseminated primarily by the infected human being and, in the case of tuberculosis, to some extent, by cattle.

To properly combat the spread of preventable infectious diseases we need: (1) An enlightened public, (2) a conscientious and united medical profession ready to do its duty as individuals and especially to work in a spirit of cordial cooperation, with (3) central and local boards of health which are under the direction of trained sanitarians.

The organization of all these measures depends, in the end, on the results of our individual efforts as physicians. The education of the public can be accomplished only by us; and it is our duty privately, publicly, day in and day out, to explain to the people the rules of self-protection. The faithful performance by us as physicians of the necessary measures of prophylaxis in every individual case is almost the corner stone of the edifice. These duties, it is true, greatly complicate the life of the physician. The measures which we ought to carry out, and which can perfectly well be carried out in every case of typhoid fever, are tedious and annoying, but they are no more so than the aseptic and antiseptic precautions employed daily by the surgeon. They are duties which we must recognize unless we are content to lose, as we do every year, thousands of the very flower of our youth through preventable diseases; unless we are content to remain as we are now, one of the few nations in which the disgraceful prevalence of typhoid fever, a filth disease, is a byword throughout the civilized world. Isolated, individual effort, however, goes but a short way of itself. We must cooperate with one another and with our boards of health; we must work in unison and see to it that, as in the case of scarlet fever and measles and diphtheria, so every case of typhoid fever and tuberculosis is reported and the proper measures of prophylaxis taken.

And lastly, the character of our state and local boards of health, that most vital point depends largely on the attitude and efforts of the medical profession. After what has been said it is hardly necessary to refer to the increasing importance to the community of local and central boards of health. It is on these bodies that we depend for the organization and direction of the more comprehensive measures of prophylaxis, the need of which is increasing daily with the greater complications of our life and the advances in medical knowledge. Moreover, in recent years, departments of health have assumed a wholly new significance with the establishment of diagnostic laboratories. Modern methods of diagnosis, microscopical examinations of sputa and of the blood, bacteriological examinations of smears and cultures from the throat, tests for specific agglutinins in the blood in fevers are too complicated and time-absorbing for the busy practitioner. Much of this work is done in private laboratories by specially trained men. There are, however, many who can not afford the additional expense of such examinations, people who are not objects of charity and who can and do bear the ordinary expenses incident to their medical attention, as well as many who must always be cared for by the benevolence of the physician or at the public expense. But it is absolutely necessary, not only for the sake of the patient, but also for the protection of the public, that these more precise measures of diagnosis be carried out so far as possible in all suspicious cases. If they are not carried out, a vitally important link is removed from the chain of our public measures of prophylaxis. And so it has come to pass that state and county and city boards of health are everywhere wisely establishing laboratories in which such examinations are made at the request of the attending physician. Now it is clear enough to any mind that the direction of such boards should be in the hands of men with a special training as public sanitarians, pathologists and bacteriologists. That these facts are not wholly appreciated by the general public, that the pernicious influence of political favoritism now and then plays a part in the selection of such bodies need not be mentioned. But I wish to assert and assert emphatically my conviction that, as a people, we are too fond of using the word "political" with a smile of contempt; we are too fond of speaking lightly of the conscience and honesty of the politician. Few politicians would voluntarily prostitute a branch of the public service which is so vitally concerned with the welfare and safety of the community. I have rarely met men in political life who did not pay considerate attention to the judicious and tactfully offered advice of conscientious physicians. It is for us physicians to set them an example. We know—every one in this hall knows—the kind of man who should preside over a department of health. And yet, what a spectacle do we see with changes of administration, in almost any of our cities! Applications from busy practitioners; from men who, perhaps, from age or infirmity, desire to retire from active work; from men who have been unsuccessful in practice and are in need of money! How is the politician to know what to do if we behave in this manner? We physicians do not always realize the responsibilities which rest on us in this connection. We ought to act and speak fearlessly and frankly, so that men obviously unfitted shall be ashamed to offer themselves publicly for such positions. We ought to see to it that the representatives of our profession on such bodies are capable and well-trained men; men who can give to their work all their time, all their thought, all their energy. This again is a public responsibility, a public duty which falls upon each one of us as a practicing physician.

Another opportunity which comes to us as individuals is the opportunity to help forward the movement, now happily started, for better instruction in our schools of medicine by increasing the opportunities for practical clinical experience. We all know that we improve in the art of medicine only by the actual study of disease and the observation of the effects of treatment. Rule and precept may help; they can not make the physician. Where, in our country, has this practical experience been offered? In but a very few of our schools have the students had opportunity to follow at the bedside the course of the more serious diseases with which they are to meet in after life. I myself was never offered the occasion of following a case of pneumonia or diphtheria or

typhoid fever from beginning to end. Where then were the students of my day expected to gain this experience? Where? Why on the unfortunate human beings who might fall into their hands during their early years of practice. And why was this so? Simply because students were not allowed in the wards of the hospital except as they followed an occasional visit. Now in this country there are hospitals enough and more than enough to supply valuable clinical experience to all physicians while they are yet in their undergraduate days. This opportunity is lost because the public does not understand. "What," says the hospital trustee, "do you fancy that I want students to attend me or the sick men and women under my protection?" "Student" to them suggests an irresponsible, inquisitive youth who is conducting perilous experiments. And the student is excluded from the wards. They do not understand that the student, as a clinical clerk in the ward, is nothing more than a trained assistant. They do not realize that the presence of such students is not an experiment; that the system of clinical clerks has been in existence for years in England to the great advantage of physicians and community. The student is excluded from the wards; and what is the result? The "protected" patient enters the hospital, where he is under the direct charge of an interne, a recent graduate from a school where he has been denied the clinical advantages which he is now for the first time enjoying. He is, however, now in a position of considerable responsibility, for his busy chief can spare at the most an hour or two for his daily visit. He has many patients to care for, and little help in emergencies. He does his best, and in the midst of his multifarious duties the early symptoms of the typhoid perforation are perhaps unobserved, or probably, as he has never seen a case before, unrecognized. The dreadful reality comes upon him when it is too late. The young physician has learned something that he will never forget; but the patient? The patient is dead—his one chance, that of an early operation, lost; sacrificed to the well-meaning charitable ignorance of the public. Suppose, on the other hand, that the patient enters a ward in which there are a number of medical students on duty as clinical clerks and presided over by a similar young physician, a recent graduate, but one who, in his school days, has had some months of practical experience at the bedside. Under the watchful eye of the student who has but a few patients to follow, who is, as has been said, but an extra assistant, a trained assistant, the first suspicious symptoms are noted. The attention of the interne is excited. The blood is carefully examined from hour to hour. The surgeon, early notified, joins in watching every change, and by a timely operation, the patient is saved. What a different picture! "Fancy," one may say? No. Experience; personal experience. How, under these circumstances, can the public object to the presence of the student? Solely because of a word, because of the word "student," which means to them an irresponsible observer. As a busy, active assistant under the direction and orders of a trained superior officer, would the public object to his presence? The question is too absurd to ask.

In these matters we as physicians must teach our non-medical friends. When they realize that the hospitals *need* medical students as trained assistants, as a part, really, of the staff; when they realize that the students *need* hospital experience to make them capable physicians; when they realize that they *owe* this training to the physician in order to protect themselves and the public; then and then only will the old opposition to the instruction of students in the wards of hospitals disappear. The prejudice against ward teaching is largely a matter of words, of one word, the awful word, "student," in its absurdly perverted popular meaning. And while, incidentally, praying to be ourselves delivered from the tyranny of words, let us strive, each one as he can, to educate the public in this important matter, to help forward the movement which has already begun toward the more complete utilization of school by hospital and hospital by school.

The mention of these few opportunities for public service, opportunities which come to us all as physicians, should but impress on our minds the thought with which these remarks opened, namely that the physician is, from the very nature of his calling, essentially a public character. And however modest may be our field of work, our responsibility should always be before us. On our learning, on our progressiveness, on our alertness, on our honesty, on our fearlessness, on our perseverance, hang not only our own welfare, but that of the general public; in other words, that of our country, in much higher degree than we often realize. It is a heavy responsibility. Of much in the past we may be proud. There is much in the present on which we could improve. And the future? What shall that be? The answer lies with us.

406 Cathedral Street.

THE CANCER PROBLEM.

ORATION ON SURGERY AT THE FIFTY-NINTH ANNUAL SESSION OF THE AMERICAN MEDICAL ASSOCIATION, AT CHICAGO, JUNE 2-5, 1908.

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A just presentation of the status of surgery in any subject is as difficult as the honor of presenting it here is high, for the forward movement in research and investigation in the whole field of medicine is world-wide and aggressive, and singularly effective. Events follow each other so swiftly that the profession itself requires an almost daily readjustment. Is there within the past generation in any other department of human endeavor a record of so many basic discoveries as in medicine? Who can read the triumphs of preventive medicine, of biochemistry, of physiology, of pathology, without pride?

Surgery has all but conquered the infections and benign tumors of the pelvic organs, of the kidney, of the appendix, and of the gall bladder; it has mastered the complications of gastric ulcer, it has cured hernia, removed goiters and corrected deformities. All these are, or may be, serious operations, and yet in the hands of the present-day masters the average immediate mortality is not more than 1 per cent. What were, or what would have been, the results of such operations a generation ago? Many of these operations were then unknown, while those known were performed with possibly twenty times the present mortality.

Surgery points with pride to its success in combating infections, benign tumors, obstructions and deformities, but what can be said as to the progress in the treatment of certain malignant tumors, of cancer—a word used here to include all malignant new growths? It has been stated, and I believe truly, that the greatest outstanding obligation of medical science to mankind is

the discovery of the cause of cancer, or at least of a cure for it. There is at present a universal movement in this direction. Governments and individuals have provided funds for laboratories and hospitals. Many of the greatest minds of to-day are engaged in an effort to solve this cancer mystery. The biologist, the chemist, the pathologist, the clinician and the statistician are enlisted. All honor to the men who have the courage to risk a life's work in what may prove to be vain endeavor; but what a victory for him who first reaches the goal—the delivery of mankind from its most dreaded disease!

Although the cause of cancer still remains unknown, many of its phenomena have been carefully studied. Cancer occurs in every climate and among all mankind, savage and civilized; in wild and in domestic animals, the carnivorous and the herbivorous; in birds, fishes and reptiles; and even in the lowly oyster. Throughout Nature the histologic picture of cancer of any definite type is the same.

The frequent assertion that cancer is on the increase, as shown by certain mortality tables, may be partly accounted for by the greater number of correct diagnoses, by the general increase in longevity, and by the decrease in infant mortality. Through the natural evolution of medicine one should expect a further fall in the death rate from infectious diseases, and hence a relative rise in the number of cancer and senile deaths. On the contrary, an increasing number of cases of cancer are cured surgically each year. This balancing of conditions will tend further to alter the percentage of cancer incidence. Bashford and Murray have shown that absolute statistics of cancer prevalence is not at this time available. If the rate of cancer prevalence estimated for the British Isles be adopted as accurate for this country, it may be estimated that there are in the United States at this moment approximately 80,000 cases of cancer, and possibly a million cases among the entire population of the world. According to statistics, one woman in eight who reaches her thirty-fifth year dies of cancer. The postmortem statistics of hospitals show that cancer is found in one in twelve autopsies.

Cancer not only destroys countless lives, but it destroys them by a method of merciless torture. To die from an accident or from an acute infection is a matter of days or weeks; to die from cancer is a matter of months or years, and this is a period not alone of suffering, but of suffering without hope—a horrible species of cellular cannibalism.

The biologic characteristic of the cancer cell is its power of limitless division. A single strain, for instance, the Jensen mouse tumor, has been transplanted thousands of times during a period much longer than the natural life of a mouse. In that period a large quantity of tumor tissue is grown, apparently capable of endless cellular division, and showing no evidence of decreasing activity. It seems probable that cancer cells may multiply indefinitely and may, possibly, like the ameba, prove to be immortal.

But few spontaneous cancers have been successfully transplanted from one individual to another of the same species, and no cancer has as yet been transplanted from one species to an individual of another species. Few, if any, cases of cancer transplantation have occurred between human beings. A surgeon's immunity from cancer infection during operations is apparently complete. Gaylord and Clowes have shown that in the transplanted cancer of the mouse an immunity may be established in the recipient. This immunity is produced by the growth of the transplanted tumor, and is made obvious by its complete regression and the impossibility of again successfully planting such a tumor in the same animal. Natural immunity to cancer has been found in some animals. Ewing and Beebe have observed similar immunity in a strain of transplantable sarcoma of dogs.

Although the primary cause of cancer is not known, many of the predisposing causes and pre-cancer states are known and can be recognized. In sarcoma of bone there is a history of trauma, usually severe, in not less than one in three cases. The growth of carcinoma rarely follows a single traumatism, but in the visible fields it is frequently preceded by chronic irritations, by scars and ulcers, by hyperplasias, by chronic inflammation, and by pre-existing benign growths. Examples are smoker's cancer of the lip, mouth and tongue; cancer resulting from friction of clothing; from the picking of warts and moles; from the irritation of nails in the mouths of lathers; from the irritation of a broken tooth or tooth plate; from the soot irritation of the chimney sweep; from fissures and cuts of the lip; from senile warts or scales of the face; and from irritation of foreign bodies, such as calculi in the gall bladder, the kidney and the urinary bladder.

There is, in fact, scarcely an instance of a complete account of a case of visible cancer that does not give a clear pre-cancer history—a history of chronic irritation, ulcer, scar, hyperplasia, innocent tumor, or a combination of these factors.

Cancer notably follows fixed laws. Is the inception and growth of cancer of the face, lip or tongue different from the inception and growth of cancer of the stomach? Were the stomach as exposed to view as is the lip and tongue, is it not probable that just as well-defined pre-cancer stages would be observed? Or, were the lip and tongue hidden, as is the stomach, what should we know of the inception phenomena of cancer of the lip or tongue?

Among the benign growths predisposing to cancer, let us note fibromata, papillomata, adenomata and cysts; such as papillomata of the larynx and bladder, adenomata of the uterus, breast and intestine; cysts of the ovary and breast; and the hypertrophy of the thyroid.

Among the benign tumors of the uterus, one in thirty becomes sarcomatous; and in one in fifty cases the uterus becomes carcinomatous. Most innocent tumors of the parotid gland ultimately become sarcomata. Many irritated moles freely metastasize as deadly melanomata. Warren, Cathcart and others have pointed out the frequency of the transformation of benign and malignant tumors. Indeed, as Bland-Sutton has well said: "The more carefully the histology of tumors is investigated, the more obvious does it become that the border-land between innocent and malignant species becomes less easily definable."

We may conclude, then, that chronic irritations, ulcers and benign tumors are potential cancers, and should be considered in that light. The pre-cancer stage is the prophylactic stage.

While the treatment of pre-cancer states and benign tumors is effective, easy and safe, the treatment of developed cancer is to-day perhaps the most difficult problem of surgery. Has there been progress? Has the limit of operative measures been reached? Inas-

much as excision is still the only reliable means of cure, what has excision accomplished?

Twenty-one years ago Butlin collected statistics of 364 operations for cancer of the larynx, esophagus, kidney, thyroid and pylorus. Two-thirds of the patients died of the operation, and of the 126 survivors only one was known to be alive and free from the disease three years later. Butlin characterizes this result as ghastly. Halsted quotes the elder Gross—and Gross was the first surgeon of his day—as stating that he had never cured a case of cancer of the breast. Halsted, however, developed this field by applying a perfected technic to a correct pathologic conception, and his work serves as a general model for cancer operations.

In the Johns Hopkins clinic, 47 per cent. of all cases of breast cancer operated on have remained well for three years or more. Considering only the cases that seemed at the time of operation to be clinically favorable, seventy-five out of every hundred were cured. A group of cases still more impressive is that consisting of those in which a clinical diagnosis of cancer could not be made prior to operation. Of these, 96 per cent. remained well for three years or more. The operative mortality in the representative clinics to-day is less than 1 per cent.

In cancer of the head and neck there has been a similar evolution, resulting in an improvement so extraordinary that to-day the mortality rate of the major operations in this field is no greater than that of tracheotomy or herniotomy a generation ago.

Little or no improvement is seen in the results in cancer of the esophagus or of the thyroid. Neither has there been any progress noted in the purely surgical treatment of round-cell sarcomata, especially of the bones and lymphatic glands.

The surgical possibilities in some of the well-developed cancer fields may be best displayed by arbitrarily dividing the cases into three clinical groups: those favorable to operation, those unfavorable, and those suitable for palliative operation.

In the favorable group are included all cases that prior to operation gave no evidence of the involvement of any other tissue than that originally attacked; for example, in cancer of the breast, those cases in which no glands are palpable and the growth has not sensibly involved the skin, the muscles, or other structures.

In the unfavorable group are included the cases presenting demonstrable extension beyond the tissue of primary lesion. Among these there are relatively few cures.

In the group of cases suitable for palliative operations are included those on which operations, such as gastro-enterostomy, colostomy and visceral anastomosis for extensive visceral cancer are performed without hope of cure, but to relieve symptoms.

When operated on according to the highest standards of the present day, the favorable group of cancer cases of the skin, lip, tongue, breast, larynx and certain viscera show a three-year cure in approximately eighty out of every hundred cases. When the disease, even in the favorable group, is so situated, for example, in the tonsil or esophagus, that the surgeon is hampered in the application of the principles governing operations for malignant disease, the probability of cure is greatly reduced.

From the aggregate results of operative treatment, then, it may be concluded that great progress has been made. Why? Because certain fundamental principles have governed the technic. These principles are block excision of the entire cancer field, including the area of lymphatic distribution and drainage, and extreme care in handling the cancer tissue to prevent the spread of cancer cells beyond the operative field. The knife must never touch cancer tissue. Rough surgery constantly defeats itself. Pathologic thoroughness and gentleness, added to a perfected surgical technic, have been rewarded by so many cures that first the profession and then the public gained confidence in the surgical treatment of cancer. Hence, patients applied earlier and better results followed, thereby increasing public confidence—a species of beneficent circle constantly leading to still earlier, hence more effective, operations. It is axiomatic to state that the earlier the operation the more certain is the cure. The chance of failure, as Andrews has emphasized, rises in geometric ratio with the lapse of time from the onset of the disease.

Has the limit of operative measures been reached? An answer to this question demands that the obstacles in the way of better results first be known. Many, perhaps the majority, of cancer patients are seen too late. Why? When the growth is in a visible field the patient may not suspect the changes in a wart, a mole, an ulcer, or a scar; or suspecting, even knowing the truth, he may not believe in the efficacy of an early operation. Education is here needed. The family physician may delay because he wishes to be sure of the diagnosis; he may wish to try local treatment, or a course of specific treatment, whereby, he argues, he is giving the patient a chance; but, as Butlin has remarked, the physician has thus too often robbed the patient of his only chance and has allowed the cancer to gain a mortal grip. Again, some physicians question the diagnosis until there appears glandular enlargement, general emaciation and cachexia. I have often thought, that, pending a more general enlightenment, it would be a great boon to mankind if the words "glandular enlargement and cachexia" as denoting symptoms of cancer were stricken from every text-book of medicine. These are terminal symptoms and indicate that the surgical opportunity is forever lost. Were the result not so tragic, such professional simple-mindedness would be ludicrous. Finally, some physicians make a diagnosis, but yield to their natural inertia and drift with the disease. Such men need an awakened conscience. While the early and hence curable stage is easily recognized in the external field, what possibility is there by our present inadequate means of diagnosis of recognizing internal cancer in its curable stage? It is in these cases of internal cancer that advanced disease only is recognized and in these that surgery appears at its worst. All clinicians acknowledge the inadequacy of present methods of diagnosis of concealed cancer. Ewald has well said: "Exploratory incision in suspected cases is all well enough, but one can not expect the whole community of possible suspects to submit to being opened for inspection in order that the occasional case may receive early operation."

By analogy and from actual experience we believe that operations for incipient cancer of the stomach and intestines yield as good results as operations at a like stage for external cancer. Is there in internal cancers a warning pre-cancer stage? Boas, Ewald, Hauser, Rosenheim, Lebert and many others recognize the fact that simple ulcer may become transformed into cancer,

and they estimate the frequency of such transformation as 5 per cent. or more. Of cancers of the stomach, Mayo, Moynihan, Rodman and others find in over 50 per cent. a history of previous ulcer. Ewald has recently declared that such cancerous transformation is far more frequent than has hitherto been assumed.

The study of the living pathology at the operating table is daily convincing surgeons that gastric cancer, like cancer of the skin, the tongue, the mouth and the lip, has frequently a pre-cancer stage, and that stage is usually ulcer. Ulcer, then, may have a sinister meaning. As Park has emphasized, cancer itself has no symptomatology. Kelling has interestingly opened the problem of a biologic test for cancer. Basing my inferences on the work by Beebe, Clowes and others, on the chemistry of cancer, and on the general work on hemolysis by many men in recent years, I was able to interpret the hemolysis in one of my early cases of direct transfusion of blood in a hopeless cancer case. Wile and Beebe have found hemolysins in transplantable sarcoma of dogs. My clinical case suggested the investigation of the hemolytic property of cancer blood as a possible aid to the diagnosis of cancer.

I am indebted to Dr. Beebe and Dr. Macleod for many suggestions. An assistant trained in this work has tested for me all available cancer material during the past eight months. The technic is exacting, requiring close attention, and unless precisely executed will not justify practical interpretation.

The reaction is the following: The blood serum of a cancer patient may hemolyze normal corpuscles, but normal blood serum usually does not hemolyze the red corpuscles of a cancer patient. In some patients—thus far only those with inoperable cancer — there was reverse hemolysis. The cancer corpuscles were hemolyzed by normal serum. In some cases there was no reaction. If this reaction is to be of diagnostic value, then it must occur in cancer cases only or in diseases not readily confused with cancer.

In one hundred and twenty-five normal individuals tested there was hemolysis in no instance. Among 80 patients with cancer, 82 per cent. showed hemolysis, while those with benign tumors showed no reaction. In the cases of tuberculosis those showing hemolysis showed a much greater autolysis than hemolysis, thus giving a characteristic reaction. In chronic suppurations and acute infections no hemolysis occurred.

Hemolytic tests of the extracts of cancers and benign tumors were also made. We were able to corroborate Beebe's observations that the extract from cancer tissue caused active hemolysis, while the extract from benign tumors showed no hemolysis. This suggests the origin of hemolysins in the blood of cancer cases. No hemolysis, then, has been observed in normal individuals, none in the victims of benign tumors, and none in those of pyogenic infections. Hemolysis occurred in 82 per cent. of cancer cases and in a considerable percentage of tuberculous cases, which, however, can be differentiated by the autolytic reaction.

Of the 20 per cent. of cancer cases that did not show hemolysis, all but one were either inoperable or very advanced. There was but one negative reaction in the early cases. In cases of suspected cancer giving negative tests the chances have been twenty to one that the cases were either in a late stage or non-malignant. Cured cases showed no hemolysis.

In a myxoma of the breast of long duration, which had recently enlarged, the clinical diagnosis was "cancer transformation." Hemolysis was negative. The case proved benign.

A bone tumor gradually enlarging during six months was clinically diagnosed as sarcoma; hemolysis was negative; osteomyelitis was demonstrated. A similar result was observed in a case of tumor of the clavicle. A solitary tumor in a large breast of a woman of 46 was clinically diagnosed carcinoma; hemolysis was negative. The tumor proved to be a small cyst surrounded by hyperplasia.

A case of secondary anemia with a history of indigestion without symptoms of cancer showed hemolysis; two months later a tumor of the epigastrium became palpable and a fragment in the vomitus showed carcinoma.

A case of luetic stricture of the sigmoid under treatment for ten years showed hemolysis. The patient was operated on and an early stage of "cancer transformation" was found.

In a uterine fibroid without suspicion of malignancy, a routine hemolysis test was made. Hemolysis occurred and at operation sarcomatous transformation in the center of the tumor was disclosed.

Although in its present state of development the hemolytic test for malignancy is not specific, the reaction may be a valuable aid in diagnosis, and has more than once been the only positive evidence. The entire subject is a promising field for investigation. The limit of resources in making an early diagnosis, hence, an early operation, even in internal cancer, has, therefore, by no means been reached. It has frequently been stated that the limit of operative possibilities has been attained. Have the minimum of operative mortality and the maximum of safe excision been reached? The principal operative risk may be expressed as the sum total of shock, hemorrhage and infection. Even if it is assumed that operators can not be more gentle, more precise and more dextrous, thereby still further minimizing shock and hemorrhage, newer methods of avoiding and of treating these complications are at hand.

In cases in which the blood of a cancer patient has not been so altered as to render the mixing of normal blood with it unsafe, hemorrhage and shock may be successfully controlled by the direct transfusion of blood. Cancer patients rendered poor surgical risks by hemorrhage may, by the means of direct transfusion of blood, become good risks and safely undergo operation. In like manner, a dangerous degree of shock following operation may be relieved almost with certainty by transfusion. The direct transfusion of blood, when properly employed, has proved almost a specific treatment for both shock and hemorrhage. Neither shock nor hemorrhage can cause death except by anemia. There can not be a fatal anemia if a sufficient amount of blood is in the circulation. The only exceptions to this statement are cases of certain organic lesions. Cancer patients reduced by hemorrhage, or otherwise, may be operated on with safety by uniting the vascular systems of the donor and the patient just prior to the administration of anesthesia. Enough blood is transferred from the donor to the patient to give sufficient stability to the latter's circulation and to warrant etherization. An assistant is detailed to take charge of the transfusion, regulating the flow at the discretion of the surgeon. If the patient's blood pressure falls during the operation, or if his pulse quickens, sufficient blood

is transferred to regain a stable circulation. At the completion of the operation the patient's circulation is usually greatly improved over its condition at the beginning.

In every case of cancer it is necessary to make preliminary hemolytic tests. If the patient's serum hemolyzes the proposed donor's corpuscles but little harm will be done. The serum of the donor's blood will in itself answer the purpose of filling the patient's relaxed vessels. Should there be a reverse hemolysis, that is, should the donor's serum hemolyze the patient's corpuscles, then a transfusion is strictly contraindicated, but the cases of reverse hemolysis thus far observed have been inoperable.

The following is illustrative: A case of papilloma of the bladder which had degenerated into carcinoma had been reduced by long-continued and progressive hemorrhage to the following condition: Hemoglobin 25, red count 1,900,000, blood pressure 110, pulse rate 132. The patient was clearly unable to withstand a resection of a portion of the bladder, together with excision of a large tumor, but an operation was performed as above outlined, with the patient's son as donor. About one-fourth of the bladder was excised and an extensive plastic operation on the ureter was made. At the end of the operation the patient's shrunken, anemic face was full and pink, and his circulation was markedly better than before the operation. He made a splendid recovery. Other cases have been equally successful.

In the prevention and control of infections, especially in operations on the head and neck, much more may be accomplished. The mediastinum may be protected by developing a preliminary granulation barrier, which is done by making a preliminary dissection into the deep planes of the neck and packing with iodoform gauze five days prior to the operation; blood inhalation may be prevented and anesthesia simplified by nasopharyngeal tubage and packing. Better protection of patients from chilling, the employment of skilled anesthetists and other similar means are constantly decreasing the number of infections and pneumonias. In my last 72 major operations in this field there was but one fatality.

The *x*-ray and radium have a curative effect on certain superficial cancers. In doubtful cases the skin flaps after operation may be retracted and the *x*-rays applied directly. In this manner the deep field, and therefore the cancer cells, may become superficial, and hence amenable to the *x*-ray influence. A number of cases of sarcoma have been cured with Coley's toxins. According to Coley, the postoperative use of mixed toxins is an aid.

Truly, the attainment of the limits of surgical possibilities is still far removed; the operative sphere may be still further extended, and surgical risks may be further diminished. Although surgery has accomplished much and holds out bright hope of accomplishing more, is there not evidence that other methods also may cure cancer?

The work of Gaylord and Clowes, Beebe and Ewing, Ehrlich, Loeb and others, demonstrating a not infrequent immunity against cancer, was utilized by Beebe and myself in an attempt to cure transplantable sarcoma in dogs by maximum bleeding of the "tumor dog" and heavy overtransfusion from an immune dog. By this method we have cured of sarcoma nine out of eleven dogs, some of which were cachectic and had metastases. The cured animals in turn became immune and were successfully employed for curing and immunizing other dogs. These animals since have been repeatedly inoculated with sarcoma, but have remained not only well but immune for more than a year.

Arguing from this work and from the fact that among the lower animals certain ones are naturally immune, we have transfused normal blood into six human subjects having sarcoma, their tumors having been removed previous to transfusion. Sixteen months have now elapsed since the first case was so treated. Although the cases were of the round-cell and spindle-cell types, presenting an exceedingly bad prognosis if excision alone were done, and although they are at this time apparently free from the disease and show no hemolysis, they will be available, as arguments on which to form a final judgment, only after three or more years. Should these patients be cured and become immune, it is likely that they may be available for curing others, so that eventually a group of immunes may be established. The whole matter of immunizing against sarcoma is at this time wholly experimental, and my statements are presented with that understanding.

SUMMARY AND CONCLUSION.

Cancer is widely distributed in Nature; is slightly, if at all, communicable; is not yet proved to be increasing or hereditary; and is rarely transplantable. Its biologic characteristic is the power of endless division of its cells. The natural prognosis is death. Frequently there are well-defined predisposing causes and pre-cancer states. The pre-cancer stage is the preventable or curable stage. It is vastly better to prevent a cancer than to cure it. No specific therapeutic measure exists; the knife is still the most reliable means of treatment. In its beginning cancer is always local and is curable by complete excision. The chances of cure diminish in inverse geometric ratio to the lapse of time since its inception. There is evidence that a reliable blood test for cancer may be established; and there is a possibility of utilizing for cure the immunity principle through transfusion of blood.

If there is in many cases a recognizable and curable pre-cancer stage, if the disease in its incipiency is local and curable by excision, if the magnitude of the necessary operation increases in a direct geometric ratio and the chance for cure diminishes in a reverse geometric ratio with the lapse of time since inception, what is the duty of the profession, especially in its organized function and in its altruistic aim, toward the hundreds of thousands of fellow-creatures who now, without suspicion of the dreadful truth, are in the pre-cancer or early curable stage of cancer? What is the duty of the profession toward hundreds of thousands who will be stricken next year and each year to follow? This duty is to undertake a campaign of cancer education. The public is entitled to receive from the profession all the enlightenment required for self-preservation. It may be difficult to persuade a man to change his political tenet or his religious creed. Sentiment here may bind him closely. There is no tie of sentiment between a man and his cancer. Enlightenment ought to be easy and effective.

Finally, a careful consideration of the progress made in cancer research and in treatment should banish despair, give new hope, and urge all to put forth still greater endeavor to conquer in the end.

1021 Prospect Avenue, S.-E.

Original Articles

VARICOCELE AND ITS OPERATION.

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The etiology of varicocele depends largely an anatomic conditions. The veins of the spermatic cord are relatively long and take a vertical course, supported only by loose tissue. Their combined lumen is large as compared with that of the artery, so that the *vis à tergo* is reduced to a minimum (Treves). They are tortuous, have frequent anastomoses, and are imperfectly supplied with valves. These factors, taken with the pressure exerted on the vessels as they pass through the inguinal canal, must favor stagnation of the blood current and cause dilatation and lengthening of the veins, thickening of their walls, and lengthening and relaxation of the scrotum. The last result is given but slight notice in the writings of northern authors, but in warm climates it is an almost invariable accompaniment of varicocele.

Varicocele is a common condition, being found in 10 per cent. of all men between the ages of 15 and 30. Unsatisfied sexual desire and excessive intercourse have been ascribed as causes. The former must influence the trouble, since it sometimes disappears in young men after marriage. No doubt a predisposition may be inherited. Occupation plays a part in the causation, since varicocele is common among men who stand a great deal, such as clerks, bookkeepers, etc.

More than 90 per cent. of cases occur on the left side, the explanation of which is also on anatomic grounds. The veins in the left cord are larger, the testicle hangs lower, and the left vein empties into the renal vein at a right angle, while the right vein empties into the vena cava at an acute angle. Again, the left spermatic vein, as it runs behind the sigmoid flexure, is constantly subjected to pressure from the accumulation of feces in the bowel. It is said that the modern habit of "dressing" on the left side tends to increase varicocele on that side, and that mild cases sometimes are improved by changing to the right side.

A very large varicocele may produce no symptoms, while a small one often gives rise to pronounced symptoms, depending largely on the effect on the patient's mind. In a large number of cases the mental effect is the main feature of the disease and requires an operation for its relief. This is particularly true when the condition is associated with masturbation, the patient then being fearful of impotence. There is no proof that masturbation is connected with the cause of varicocele.

The usual complaint is a sensation of weight and dragging in the scrotum, accompanied at times by an aching pain which extends to the back and groins. The veins may become tender or inflamed and spasm of the cremaster muscle may produce an acute cramp. Occasionally the suffering is so marked as to force the patient to lie down before obtaining relief. In the beginning the testicle becomes slightly enlarged from impediment to the return circulation, but ultimately is apt to diminish in size, whether from true atrophy or not is uncertain.

Varicocele without symptoms requires no treatment, though it is sometimes necessary to operate to permit a candidate to pass a physical examination. Some cases are helped by palliative measures. The scrotum is douched daily with cold water, the bowels are kept regulated, and a comfortably fitting suspensory is worn. A suspensory causes much discomfort in hot weather, however, and the sweating and irritation it provokes almost counterbalance the benefit of the support it furnishes.

Operative treatment is best and can be carried out under local anesthesia, but a general anesthetic is more satisfactory. The text-books recommend ablation of part of the scrotum as being occasionally indicated, but in the south, where the pendulous scrotum is so common, it is generally indicated. Cures by this procedure alone have been reported. Certainly it is one of the most important steps in the operation. The shortened scrotum affords a natural and permanent support for the cord and testicle.

If the scrotum be not partially excised, the incision over the veins should be made just below the external abdominal ring, as advised by Dr. Bloodgood. Here the veins are fewer in number and the wound heals more readily than in the scrotum. In any operation the genital branch of the genitocrural nerve must not be injured, since it supplies the cremaster muscle and the scrotum, which, if deprived of their nerve supply, would tend to become lax and favor a return of the varicocele. The nerve runs down on the inner side of the cord and below it.

Some surgeons excise one or two inches of the veins at the thickest part of the mass by making a longitudinal incision through the scrotum, and then ablate a portion by using King's clamp. This clamp is applied close up to the testicles tight enough to prevent any tissue retracting when the scrotum is cut. After severing the scrotum with knife or scissors, silkworm-gut sutures are taken through the needle holes of the clamp and are tied in the slits without removing the clamp until all the sutures are taken and tied. The skin edges are then better approximated by a running suture of fine catgut, and thus a completely closed and bloodless operation is effected.

The advantages claimed for this method are rapidity and freedom from secondary hemorrhage, since the cut ends of all vessels are supposed to be caught in the sutures. The operation undoubtedly is rapid, but is it following good surgical principles to allow a clamp to compress tissues as tightly and for as long a time as this requires? It does not seem reasonable that the sutures will hold the ends of all the vessels, since these sutures are parallel to most of the vessels. Secondary hemorrhage has followed the plan. It will also follow the open method of operating if sufficient time and care be not given to securing and tying all bleeding points.

By the open method two incisions are avoided, as the veins may be removed through the same opening. Inspection of the testicle and tunica vaginalis is afforded, which in a large proportion of cases will reveal a hydrocele. It is well to give attention to small details in the operation, because so often it is performed on neurotic patients in whom the neglect of such details will have considerable mental effect. For instance, in ablating the scrotum a curved clamp should be used, or the ends of a straight incision rounded off in order not to leave any little elevations of tissue. These would absorb in a short time, but their presence will annoy some neurasthenic individuals while they remain.

A curved scrotal clamp or two curved long-jawed forceps are employed to hold the scrotum while the redundant portion is being removed. The clamp is pressed

hard against the testicles, in a longitudinal direction, and as much subcutaneous tissue as possible pressed out before cutting. This lessens the number of vessels that will be cut. After severing the scrotum with knife or scissors the clamp is taken off and all bleeding points are carefully caught and tied with fine catgut.

The varicosed pampiniform plexus is now exposed as far away from the testicle as possible and separated from the vas deferens with its artery and veins. The plexus lies with the spermatic artery in a separate sheath which need not be split. Sometimes the separation is difficult on account of adhesions which exist as a result of inflammation. Ligation of the spermatic artery does not impair the nutrition of the testicle.

The vas deferens is easily recognized by its cord-like feel. It must not be handled unnecessarily, and is held aside with its vessels while a double chromicized catgut ligature is passed around the veins. This is separated and the veins firmly tied in two places two inches apart, the lower ligature being tied first. The intervening section is now removed, care being observed to leave the stumps long enough to prevent slipping. The ends of the ligatures may be left long and the cord shortened by tying them together. This saves time but leaves a lump which will persist for several weeks to vex a nervous patient. It is better to approximate the ends of the veins and stitch them together.

The wound is closed longitudinally with interrupted silkworm sutures, the ends of which are left long and tied together, as short ends will irritate the sensitive scrotum. Drainage usually is not necessary. Rubber tissue or oiled silk is placed over the dressing to prevent the possibility of contamination by urine. The dressing is held in place by a figure-of-eight roller bandage which supports the testicles. After a few days it is convenient to use a smaller dressing and a large suspensory bandage. The patient is kept in bed for ten days, and a suspensory worn only until the wound is thoroughly healed, then discarded. Otherwise there is danger of forming the "suspensory habit."

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MEANINGLESS DIAGNOSES.

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Medical science has shown an astounding progress in our generation, not only in knowledge but also in wisdom, and with this has come a refreshing education of the public in matters regarding disease and its treatment. This education, rather than interfering with the efficiency of the medical man by the obtrusiveness of the public with whom a little learning might have been a dangerous thing, has brought about a most invigorating cooperation and has increased the trust and confidence of the doctor's position.

This confidence physicians as a body should strive to merit, and it is, therefore, not in bad taste now to point out at least one matter in which, even in this enlightened day, many fall by the wayside. Advance in medicine has emphasized the fact that the *sine qua non* predicating the rational treatment of disease is the establishing of a diagnosis. Increased facilities for clinical examination have given us, in many cases, material evidence on which to base our diagnoses, and in others some tangible reasons for induction and inference.

The result of this is that we are now in a position to be thoroughly honest. Heretofore, perhaps quite subconsciously, we have not always been utterly frank with ourselves, and the time has now come when the profession should discard several ill-used and time-worn diagnoses that have expressed clinical entities, which if not fantastic, have at least never been proved to exist. These diagnoses have been used much too frequently to cover our ignorance and to pander to the desire of the patient to know what is the matter. This is a perfectly natural desire, too, and is so thoroughly relieved by an answer that it has tempted too many to resort to the diagnoses about to be mentioned.

Perhaps the most commonly used of these meaningless diagnoses is that of "biliousness," and there is no other outranks it in giving satisfaction to the patient. Just what is "biliousness"? Does it mean blocking of the biliary exit? If it does we should have jaundice and all the symptoms of biliary obstruction, and if that is so, then we are surely dealing with cholelithiasis, cholangitis, cholecystitis or new growth; in other words, a definite clinical entity which "biliousness" does not express. Does it mean insufficient secretion or excretion of bile? If so there should be those chemical changes in the stools and in general metabolism which are never looked for by the physician who diagnoses "biliousness." No, "biliousness" does not mean any of the above things, but is applied to those cases of general malaise whose true cause, if not to be found in constipation, can not be or is not ascertained. When "biliousness" has been diagnosed, nothing has been diagnosed. The diagnostician has satisfied both himself and patient and has cloaked his ignorance at the sacrifice of his frankness.

How many of us have encountered "typhoid pneumonia"? To-day there is firmly fixed in the minds of many practitioners the idea that such a combination of diseases actually exists, and when they announce the diagnosis they mean not the pneumonic type of typhoid (which, of course, does exist as well as the intestinal, meningitic and nephritic forms, and is not uncommon), but a true coincidence of the diseases. Such cases usually are typhoid pure and simple, and should there be any doubt a blood examination and Widal reaction will dispel it. Most of us, either directly or indirectly, have been influenced by the teachings of Osler, and it used to be a salient point of his that the "typhoid pneumonias" were usually typhoid, perhaps pneumonia, but never both. There is one possibility of such a diagnosis being true, and that is in a case of pneumonia caused by the typhoid bacillus, which would be striking for its rarity, that is, when not a part of typhoid fever.

"Typhoid malaria" is to be deprecated as severely as "typhoid pneumonia," for such cases are invariably one or the other. Naturally it is easily possible for a malarial patient to contract typhoid, and then he has typhoid following malaria. Such cases, however, are not the ones usually included in that class diagnosed as "typhoid malaria."

What a vogue "ptomain poisoning" has attained! It must be conceded that ptomain poisoning does exist, and may be very common for all we know, but that is no justification for calling every case of acute gastro-enteritis by that name. We are entirely ignorant as to whether such cases are actually caused by ptomains. Most of us appreciate the training in chemistry, the equipment and the time necessary to isolate ptomains, and yet many physicians blithely diagnose ptomain poisoning. It has been my experience to hear a practitioner testify at an inquest that ptomains are to be rec-

ognized by a microscopic examination of the gastric contents!

What is "gastric fever" of which we hear so commonly? It never has become quite clear to me, and probably is not quite clear to those who diagnose it, just what type of case it represents. Who first described the disease, in what works in medicine do we find accounts of it and ought we not record its death?

There are many more meaningless diagnoses than these, and it may be that each section of the country has its own particular foibles of this nature, but should not all conscientious physicians discard the use of these terms, and if there are none better to be found in the present terminology, why use terminology at all? It is self-evident that the expression "I don't know" is better than "biliousness" and the rest of the category, and brings the comfort that there is after all much doubt left, in the clearing of which we can find use for our years.

Our distance from Utopia in medicine, as in all things, is vast, and though we shall never attain the ideal, we make one step towards it when we face our ignorance when we find it, and we make still another when we try to overcome it. Rather than call things by false names or meaningless names, let us call them by no names at all, and so, for the love of Æsculapius and Hippocrates, let us hear little more of "biliousness," "ptomain poisoning" and the like.

1817 Jackson Street.

COMATOSE PERNICIOUS MALARIA.

WITH REPORT OF THREE CASES.

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The comatose form of malaria is met more frequently than any other of the pernicious varieties. Even in temperate latitudes it is not extremely rare. Its diagnosis compels an answer to the very old but frequently occurring and often difficult question, that of the cause of coma in a given case. Its prompt recognition is very important because of the effect on the mortality of the early institution of correct treatment. These considerations should make it a subject of more than usual interest.

ETIOLOGY.

Although any variety of the malarial plasmodia may give rise to pernicious symptoms, in the vast majority of cases such symptoms are due to the estivo-autumnal parasite. Nothnagel states that so far only two cases of comatose malaria have been observed in which the blood showed the ordinary tertian parasite. Aside from favoring conditions pre-existing in the individual, the development of coma depends on three factors: the number of parasites present; the amount of toxin secreted by them; and, most important of all, the localization of the parasites in the brain. In temperate latitudes malarial coma occurs almost always in the summer and fall, as do all other pernicious manifestations of the disease. In the tropics it occurs throughout the year and is quite common. The attacks usually occur in persons who have suffered from malaria for some time and have not been properly treated. Cardamitis believes that predisposing causes to comatose attacks are previous defective conditions of the organism, due to anemia, cachexia, physical or mental fatigue, the puerperium, insolation, alcoholism, etc.

PATHOLOGY.

The pathology of comatose malaria is the same in most respects as that of any severe malarial infection. There are the breaking down of the red cells, the oligocythemia and hemoglobinemia, the melanemia and pigmentation of the whites, and in most cases the relative increase in the mononuclears. There is also in the majority of cases, as in the less severe forms of malaria, a leucopenia, but in some of the fatal comatose cases a leucocytosis is observed (Craig). The changes in the spleen and liver are the same as those produced in any severe case of malaria.

The kidneys usually show the changes of acute nephritis, combined with the peculiar lesions due to the malarial infection. The urine contains albumin and hyalin and granular casts. "It can be stated, as a rule, that all fatal cases of malaria show albuminous urine containing casts prior to death" (Craig).

The most striking pathologic lesions, and those which may be said to be peculiar to the comatose form, are those found in the brain. Actual thrombi of malarial parasites occur in this organ blocking the capillaries. These can be readily demonstrated after death by simply placing a fragment of the brain tissue under a cover-glass, and the appearance presented is one likely to make a deep impression on the mind of the observer. The secondary changes are pronounced and consist of congestion of the capillaries, minute hemorrhages into the brain substances, and accumulation of pigment in varying amount. As has been shown by the researches of Marchiafava and Monti, changes occur in the protoplasm and nucleus of the nerve cells, leading to complete degeneration of the diseased tissue.

Guarnieri has described changes which take place in the retina in pernicious malaria. These consist of hemorrhages and congestion of the capillaries with impairment of function. Lellos has related a number of cases of meningitis which were apparently due to malarial infection and were cured by quinin.

The peripheral blood usually contains large numbers of malarial organisms of the estivo-autumnal variety.

SYMPTOMS.

The coma may come on suddenly like an apoplectic stroke, whence the old phrase *"intermittens apoplectica,"* or, as is more common, it may develop gradually during a paroxysm of fever, having been preceded by slight disturbances of the sensorium such as apathy, somnolence, restlessness and melancholia. The coma may disappear with the fall of the temperature to reappear again within twelve or twenty-four hours, or it may continue over a period of one to four days until death or recovery ensues.

The face is somewhat flushed, the pulse at first full and bounding, later weak, frequent and thready; the respirations are hurried and often stertorous. Attempts to rouse the patient call forth no response or only an unintelligible muttering. The patient usually lies perfectly quiet, but there may be restless movements of the limbs. The skin is warm and toward the latter part of the attack is bathed in sweat. It often has an icteric tint. The tongue is thickly coated. Feces and urine pass involuntarily. Retention of urine is not infrequent.

The temperature is not usually high, sometimes sub-

normal, but is irregular. One of my patients entered the hospital with a temperature of 103.6 F. It fell within three hours to 100.5 F., remained between 99.8 F. and 101.2 F. for twenty-four hours, then reached 103.5 F. and continued up until death ten hours later. One hour before death the temperature was 106 F.

When recovery occurs the patient may come to his senses gradually or at once. Sometimes there remains a condition of drowsiness and apathy for several days. With the onset of another paroxysm the patient may relapse into coma. In those cases which terminate fatally death usually occurs with symptoms of cardiac insufficiency. The pulse becomes small and frequent, edema of the lungs develops, and a cold sweat breaks out. The end usually comes suddenly and sometimes unexpectedly. This was true of two of the cases here reported.

The nervous symptoms which may be found in comatose malaria are of considerable interest. The limbs are usually relaxed and fall back lifeless when lifted, but irritative motor symptoms such as twitching of the extremities or of the muscles of the face may manifest themselves. In Case 3, reported below, there were tonic convulsions with opisthotonos. Hemiplegia has been observed. The eyes are often open and the balls roll from side to side. The corneal reflex is usually preserved. The pupils may be contracted or dilated and are generally equal. The reaction to light may be sluggish. Nothnagel says that the skin reflexes are markedly diminished but seldom abolished, while the tendon reflexes are ordinarily intact. In Case 2 there was marked exaggeration of the knee-jerks with ankle clonus and Babinski's and Oppenheim's phenomena on both sides. In Case 1 there was a well marked Babinski on the right.

Symptoms of focal disease of the brain sometimes persist after the attack. These may consist of hemiplegia, with or without aphasia, paraplegia with aphasia, and more rarely monoplegia. In some of the cases the symptoms disappear within a few days or weeks. In others they last longer, as in a case referred to by Nothnagel in which paraplegia and motor aphasia persisted four years after the comatose attack.

DIAGNOSIS.

When the previous history of the patient is obtainable the diagnosis may sometimes be made with a reasonable degree of certainty from the symptoms alone, without an examination of the blood. When, however, the patient is found comatose and a satisfactory history is unobtainable, a diagnosis may be very difficult or impossible without this aid. The conditions with which it is most apt to be confused are cerebral apoplexy, sunstroke and uremia.

The main points to be considered in distinguishing it from apoplexy are the age and general appearance of the patient, the splenic enlargement, the higher temperature in malaria (though this is not constant), and, of course, the examination of the blood.

Malarial coma sometimes quite closely resembles sunstroke, and the heat may aggravate or precipitate a severe malarial paroxysm. In such cases an examination of the blood is often the only means of determining the presence or absence of malarial infection. Cardamitis considers the temperature a point of considerable importance when the microscopic examination can not be had. He says that with the temperature above 104 F. the condition should be attributed to insolation rather than to comatose pernicious fever.

From the urinary examination alone it would be impossible to distinguish comatose malaria from uremia. Albuminuria and cylindruria exist in both conditions; therefore, it is necessary to rely on other data. Kraus reports an instance in which a man suffering from comatose malaria was treated by an osteopath for "uremia." Large numbers of estivo-autumnal organisms were found in the blood by a physician shortly before death.

PROGNOSIS.

On this point Nothnagel says: "The prognosis of comatose pernicious is always grave. Even after energetic treatment with quinin the mortality is large. Moreover, cases show that from the beginning a mild form may succumb in spite of the early administration of specific therapy." Craig says: "The prognosis is very grave in the cerebral forms, especially the comatose form. While a large number of such cases recover under proper treatment, a great majority of the fatal cases of malaria suffer from this form of estivo-autumnal infection." Cardamitis places the mortality under the most favorable conditions with prompt treatment at 20 per cent., under unfavorable conditions at 50 per cent. This is certainly low enough.

TREATMENT.

Quinin should be given hypodermically. It may be given in the form of the hydrochlorate, the bisulphate, or the muriate of quinin and urea. Regarding the dosage there is some difference of opinion. Osler advises 30 grains of the bisulphate hypodermically with 5 grains of tartaric acid every two or three hours, or 10-grain to 20-grain doses of the quinin and urea muriate. Craig thinks 8 grains of the hydrochlorate, repeated until 24 grains have been injected, is sufficient in most cases, but admits that in very severe infections more of the drug may be needed.

Bacelli first recommended the intravenous injection of quinin, and this method may be used in the presence of very grave symptoms.

Aside from specific therapy, treatment must be symptomatic. Stimulants, especially strychnin, are often useful.

Of the three cases reported here, two were under my care in the St. Louis City Hospital in the summer of 1906. Case 3 was treated at the Frisco Hospital by Dr. R. A. Woolsey, through whose kindness I am permitted to refer to it.

CASE 1.—*Patient.*—J. P., Greek, laborer, age about 28, was brought to the hospital unconscious, August 27, at 10 a. m.

History.—Patient was found unconscious in the baggage-room of the Union Station. No history beyond this was obtainable.

Examination.—Fairly well nourished, rather anemic, young man of dark complexion. The skin had a decidedly yellow tint, was warm, and there was no edema. The temperature at the time of entering hospital was 103.6 F. The tongue was heavily coated, the abdomen soft and flat. The spleen was easily palpable, about an inch below the costal margin. The liver dulness was not perceptibly increased. Examination of the heart and lungs showed nothing abnormal. Breathing soon became stertorous and labored, and mucous râles could be heard. The pulse was regular, rather soft, and the first day was between 90 and 100 in frequency. The blood showed estivo-autumnal parasites in abundance. The man was entirely unconscious, though he would respond to painful irritation by frowning and moving his limbs. The conjunctival reflexes were present. The pupils were large and the right slightly larger

than the left. Both reacted to light consensually and directly. There was slight effacement of the labiofacial groove on the right side. Patient could move both legs and both arms. There was some rigidity of the arms, most marked on the left. Babinski's toe phenomenon was present on the right. The patellar reflexes were present and equal. Cremasteric reflexes were present. The urine had a specific gravity of 1.015, was clear, and contained albumin and hyalin and granular casts.

Further Course.—The temperature went down within a few hours, but the coma persisted until death, thirty-six hours after admission. The reflexes were all abolished toward the last, the pulse became weaker and more rapid, the breathing difficult, and one hour before death the temperature was 106 F.

Treatment.—The administration of quinin was begun within a very short time after the patient entered the hospital. Six 15-grain doses of the muriate of quinin and urea were given hypodermically, and 90 grains of the sulphate by mouth. This composed the treatment excepting stimulants administered symptomatically.

Postmortem.—Nothing was found to explain the symptoms other than the changes to be expected in pernicious malaria. a piece of the brain was examined by Dr. H. F. Lincoln and its capillaries found to contain clumps of plasmodia.

CASE 2.—*Patient.*—W. H., American, age about 45, was brought to hospital August 30, at 2:30 a. m.

History.—No history was obtained except that he had been confined in the police station all day, and was found unconscious about midnight by the police. The urine was examined in the hospital reception-room and a provisional diagnosis of uremia made.

Examination.—Fairly well-nourished man with well-developed musculature. Skin moist and somewhat yellow. No edema. The lips showed a crop of herpes. The abdomen was soft and insensitive. The spleen was enlarged, extending a little below the costal margin. Examination of the lungs and heart was negative. The pulse was regular, somewhat soft, and 108 in frequency.

The blood contained large numbers of estivo-autumnal parasites. The patient could be slightly aroused and would attempt to answer questions, but speech was unintelligible. The conjunctival reflexes were preserved. The pupils were equal and reacted sluggishly to light. The limbs could be moved voluntarily, and were slightly rigid at times. The knee jerks were exaggerated and a well-marked ankle clonus, and Babinski's and Oppenheim's signs were present on both sides. The urine contained albumin and hyalin and granular casts.

Further Course.—The temperature remained at about 100 F. for twenty-four hours, and the coma gradually grew more profound. The respirations were stertorous and the pulse frequent. Sweating was profuse. Patient died somewhat suddenly about thirty-one hours after admission.

Treatment.—Quinin and urea muriate was given in 15-grain doses hypodermically until 105 grains had been given. Fowler's solution was given internally. Free purgation was secured and stimulants were given toward the last.

Postmortem.—The postmortem showed nothing of interest beyond the changes explainable by the malarial infection. There was, of course, parenchymatous nephritis and enlargement of the spleen. In a piece of the brain which was examined by Dr. S. P. Martin and myself malarial parasites were found.

CASE 3.—*Patient.*—H., American, age about 30, laborer, was admitted to the Frisco Hospital in July, 1905.

History.—Family history and previous personal history were negative. Patient had been working as a pumper in a town in Alabama. About three weeks before coming to hospital he had begun to have chills and these occurred daily for about one week. He had taken no treatment at the time. He was anemic and weak, but was perfectly conscious at the time of his entering the hospital, 4:00 a. m., and his temperature was normal.

Examination.—Poorly nourished and anemic appearing young man, of fair complexion. The skin was sallow. Spleen was considerably enlarged. Examination of the chest showed nothing abnormal. Blood examination showed the crescents of estivo-autumnal malaria.

Further Course.—About noon on the day of entering the hospital, after a period of chilliness, the patient was taken with general tonic convulsions, which caused him to cry out with pain and required a hypodermic of morphin. The head was drawn back and the body arched. The temperature was taken and found to be about 104 F. After a short time the convulsions ceased, leaving the patient comatose. He remained in a quiet coma during the afternoon and night. The next morning he became conscious for a time, was able to talk rationally about himself, and ask for something to eat. About noon there was a repetition of the convulsions, followed by coma, and he died suddenly in about half an hour.

Treatment.—Quinin hydrochlorate was given hypodermically in large doses, and pilocarpin and purgatives were administered.

No postmortem was obtained.

PSYCHOTHERAPY.

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The relations existing between mind and body, the dependence of the integrity of the function of one on that of the other and *vice versa,* have long been recognized and would seem to be expressed in a general way in the old Latin motto, "*Sit mens sana in corpore sano.*" Nevertheless, the fact of this interdependence did not meet with a due appreciation among the physicians for quite a long time. Too much weight was given to the direct chemical action of medicines and it was a long time before the conviction gained ground that in many cures which were attributed to the influence of drugs psychic moments played a much more important, if not exclusive, therapeutic part. Such psychic moments were: Influence on the mood, removal of harmful psychic factors, the authority and other personal qualities of the physicians, and the like.

The same considerations which have reference to medicinal treatment apply also to electrotherapy and hydrotherapy. These agents like drugs frequently have a direct favorable therapeutic effect; only their action has been very much overestimated. The achieved results have often been ascribed almost exclusively to their use. Such a one-sided interpretation raised well-founded doubts in the minds of the sober thinkers and led to a strong reaction, especially against electrotherapy, which again may have gone too far; that is to say, the psychic factor of this kind of treatment, with almost absolute negation of a direct effect, was perhaps given too much credit, especially by the neurologists.

The above-mentioned reaction was greatly furthered by the discovery or rediscovery of the phenomena of hypnotism. The recognition of these phenomena caused a marked revolution in the interpretation of many clinical symptoms and many previously obtained cures. Much that had been incomprehensible was now understood. The Liebault-Bernheim school demonstrated suggestion as the potent factor of hypnotism and proved, as it were, that hypnotism was a physiologic phenomenon and not the expression of a diseased condition, predominantly of hysteria, as the Parisian school (Charcot) had taught. Nevertheless, the similarity of the hypnotic phenomena to those of hysteria was recognized and the understanding of the latter disease was greatly furthered thereby.

The great hopes which had been built on the influence of hypnotism as a therapeutic power have only partially materialized. Attempts to influence psychoses favorably by hypnotism in particular have almost constantly been

frustrated by the impossibility of inducing hypnosis in such patients. In other cases the success was frequently only temporary and the patients became so dependent on hypnotism that they had to apply to the physician for every little ailment in order to have it hypnotized away. Very soon, therefore, the need made itself felt of utilizing the advantages of hypnotic treatment in a scientific manner by working on a psychologic basis. It soon became repugnant to the scientific thinker to attempt supplying automatically by suggestion all that was wanting or to suggest away all that should not be present. A deeper understanding of the psychic processes seemed indispensable for a rational psychic influence. Therefore, several authors, of whom I mention particularly. Janet, Breuer and Freud, began to make a thorough study of the psychic processes in certain psychoses, chiefly in hysteria. Breuer and Freud[1] thus were led to a new mode of treatment, named by them the cathartic method and described in the following manner:

> A necessary condition for the use of the cathartic method was the hypnotisablity of the patient, and the method was based on the broadening of consciousness taking place in the hypnotic state. It aimed at the removal of the symptoms of the disease and achieved this end by making the patient return to the psychic state in which the symptom had manifested itself for the first time. During the hypnotic state, memories, thoughts and impulses emerge, which before had been wanting in the patient's consciousness, and after having communicated to the physician these psychic processes with evidences of strong feeling, the symptom was overcome and its return frustrated.

Breuer and Freud explained this outcome in the following way: The symptom takes the place of psychic processes which have been suppressed and have not reached consciousness. It thus represents a conversion of these psychic processes. They explained the therapeutic efficacy of their procedure by the liberation of the hitherto incarcerated emotion which had been clinging to the suppressed psychic actions (abreagiren). But the simple scheme of the therapeutic interference became almost always complicated because it appeared that the symptom was participated in not by one single (traumatic) impression, but mostly by a whole series of such, which it was difficult to survey.

What characterizes the cathartic method in contrast with the other procedures of psychotherapy is the circumstance that here the therapeutic effect is not assigned to a suggestive prohibition of the physician. It expects rather that the symptoms will disappear of themselves when the therapeutic procedure, which is based on certain conceptions regarding the psychic mechanism, has succeeded in leading the psychic processes into another course than the one pursued by them before the formation of the symptoms.

With this method quite a step forward was gained; hypnotism found thereby a more satisfactory and rational utilization. We must not forget, furthermore, that the study of the phenomena of hypnotism itself contributed very much to the understanding of the psychologic processes in the normal as well as in the diseased mind. But, in spite of the progress gained, strong reasons opposed themselves to the therapeutic application of hypnotism. Many physicians objected especially to exposing themselves to ridicule by failures of inducing hypnotic sleep or of making the patient comply with the suggestions made. To tell a patient, "Now you can not move your arm any more; it is as immovable as if it were nailed fast," and then to see him move it vigorously, is a rather painful situation, and frequent repetition of such occurrences will soon deprive the physician of the confidence which is indispensable for bringing about the hypnotic state, and will make him lose his authority. For these reasons I have seen many a colleague give up treatment by hypnotism entirely. Moreover, there are many patients who are afraid to deliver themselves, so to say, body and soul into the hands of the physician and to confide to him eventually secrets which they would rather keep to themselves. To obviate this objectionable feature many physicians replaced the hypnotic suggestion in the waking state (Wachsuggestion).

However, Dubois has justly called attention to the disadvantages even of a suggestion in the waking state as a therapeutic procedure. He insists that suggestibility is a fault and that the individual who wishes to preserve the integrity of his common sense and to keep his mental health intact must always appeal to his intelligence and hold watch over his mentality. He may, by doing so, lose the small advantage of being some day cured by hypnotism, but will gain the great one of escaping his natural autosuggestions.

Dubois' method, based on the above-expressed principle, is, therefore, eminently one of moral education and persuasion, or, as it were, a moral hygiene and orthopedia.

The conditions to which this treatment is adaptable are the psychoneuroses, to which, as is known, neurasthenia, hysteria and similar conditions belong; among others also certain states of depression. Dubois lays great stress on pointing out to the patient the nature of his trouble. This has to be done in a tactful way. Patients are offended by the assurance that their disease is a product of their imagination, and justly so, because for them it is not imaginary, but very real. Nevertheless, they can be made to understand that imagination has an immense influence on the development, continuance or increase of their symptoms, and this knowledge has frequently a miraculously favorable effect on the course of the disease. Dubois does not neglect either to acquaint the patients with the normal physiologic functions and the conditions under which these occur, in order to show them their sins of omission or commission.

We, therefore, see here a complete renunciation of hypnotism as a curative agent and find substituted for it the application of a rational moral and psychic treatment based on a study of the functions of the nervous system in general and its relation to mind in particular.

It is only with a knowledge of these processes that a proper psychic hygiene and orthopedia can be attained.

Let us here select one instance, that of habitual constipation. How often is the neurotic, who is so often subject to this trouble, directed to take much exercise. Careful observation teaches, however, how ineffective, or sometimes even harmful, such a direction can be if not taken in the right sense. The exercise in itself, be it walking or gymnastics, bicyling or bowling, or any other, is not conducive to repairing the disturbed intestinal function underlying the constipation. In the cases in which it is of any use, the improvement is not caused by the exercise itself, but by the accompanying mental relaxation. Without this psychic relaxation all exercise is useless. The intestinal function requires, so to say, a

1. Freud, Sigmund: Sammlung kleiner Schriften zur Neurosenlehre aus den Jahren 1893-1906 (Die Freudsche psycho-analytische Methode), pp. 218-219.

certain amount of mind for its successful performance and has to suffer when deprived of the same. If the mind is occupied by a certain train of thought to the exclusion of everything else, there is, so to say, nothing left of it for the intestine.

In such cases exercise may be directly harmful, for the patient needs at times complete physical and psychic rest instead. Lying on a couch for half an hour will then do him more good than a long walk or other physical exercise.

The above deductions find, in a certain sense, an interesting confirmation in the investigation carried on by Dr. Joseph Merzbach. This author made inquiries of 233 letter carriers, 243 policemen and 102 office clerks in regard to the movements of their bowels. This clinical material represented, therefore, occupations with excessive, moderate and little bodily exercise, respectively. His conclusions, expressed with a certain reserve, it is true, were these:

> Rest and ordinary exercise, but not excessive exercise, are equivalent in their functional results. Violent exercise certainly contains a factor influencing peristalsis, but this influence is more frequently in the direction of inhibition rather than in that of stimulation. Rest acts least favorably (i. e., in the smallest percentage of cases), but also much less unfavorably than moderate and excessive exercise.

Of great importance also is the attitude during the defecation. In this act, too, the intestine requires a certain participation of mind for securing proper function. Defecation is only to a small extent an act of the will, but is in a large part dependent on peristalsis, which can not be influenced by the will. Pressure movements, if not made at the right moment, are, therefore, not only unsuccessful to the immediate result, but even detrimental to the final result through the discouragement which this inefficiency causes. The action of mind must restrict itself to paying attention to the intestinal stimuli and yielding to them. This is accomplished chiefly through the relaxation of the sphincter and usually results in the discharge of gases which facilitate a further movement of the fecal mass. In this way consciousness indirectly supports the peristaltic movement of the intestine, which it can not influence directly. For this reason the patient need not feel discouraged when the result of his efforts is only a discharge of gases without defecation, for the movement of the fecal mass has been furthered by this action and his next attempt is apt to be successful; that is, to produce stool, especially if the patient will, as I would recommend, make two attempts daily at defecation. If one does not take his time about it and fails to heed the intestinal stimuli, being taken up with other matters and is anxious to get through quickly, the above-mentioned intestinal stimuli will often fail to appear, or rather they are psychically suppressed, crowded out by the predominance of the other contents of consciousness; furthermore, the attention is too much diverted to react properly and thus the effect is frustrated.

This does, of course, not exhaust the subject of habitual constipation. It was only my intention to emphasize the importance of the psychic factor in the treatment of such conditions and, in closing, to draw attention to the brilliant results achieved in many cases by a purely psychic treatment, of which fact Dubois' experience gives most eloquent evidence.

Let us select another example, that of insomnia. Many neurotics are subject to this disorder and, to treat it properly, a thorough study is necessary of the conditions which have led to the disturbance, as well as a knowledge of the physiology of normal sleep. Many patients can not find sleep, because they persistently seek it. And since normally sleep is not a voluntary act their efforts invariably fail. It is given to only few people to do like Napoleon I. and say, "I must sleep, ergo, I shall sleep." As Dubois expresses very prettily and explains to his patients for guidance, sleep is in one respect comparable to a pigeon. It will come to you if you pretend not to care, but it flees as soon as you try to catch it. Thus many patients find their sleep again by consoling themselves with the idea of eventually doing without it.

Any number of instances of this kind could be brought forward, but it would lead too far to enlarge on the subject.

I should like, however, to say a few words about one symptom in neurotics which is of special importance; I mean fatigue. Physiologically, it will be convenient to distinguish three phases or grades in fatigue, which division probably finds support also from the point of view of evolution in the sense of Lamarck and Darwin. The lowest grade of fatigue is probably muscular fatigue. It takes place when the muscle has to cease work because of exhaustion of chemical energy or because of accumulation of "fatigue substances" as recent investigations seem to indicate. This is economically probably the most unfavorable form, because after complete exhaustion of energy the restoration of function is slow in establishing itself and there is no reserve energy left for unforeseen exigencies. The second grade is represented by accession of the feeling of fatigue. This feeling serves as a danger signal, inducing us to stop muscular effort and thus obviate complete exhaustion of energy. There is, then, a reserve fund of energy still left for emergencies, and one is protected from overstepping the safety threshold of work. The third grade is manifested by the feeling of depression which is evoked by very great fatigue and is accompanied by a gloomy, pessimistic mood. It represents a still higher grade of protection, because, while we might feel inclined to disregard the warning which the feeling of fatigue ought to give us, the feeling of disinclination and the depression which follow excessive fatigue prevents that neglect. The inhibition of will power thus resulting warns us against excessive expenditure of energy. Now, it certainly happens frequently that the ratio between these grades or phases of fatigue is disturbed. Thus the feeling of fatigue is unusually strong in neurasthenics and other neurotics; they tire very easily and fatigue with them leads perhaps very quickly to depression. On the other hand, many neurotics suppress the feeling of fatigue by the use of stimulants such as tobacco and thereby keep back the depression needed as a protection from overwork; and through loss of this protective device an excessive, frequently irrevocable loss of energy is brought about.

On the other hand, the psychic depression caused by fatigue can develop hypertrophically and be quite out of proportion to the real fatigue, especially so in people who do chiefly intellectual work. Such a disproportion is perhaps the basis of pessimism.

It is further to be emphasized that the easily fatigued neurotics are usually of an emotional temperament, and since emotion represents a very powerful etiologic factor of psychic fatigue we often find in these patients a pronounced vicious circle.

Only by giving due consideration to these factors can

such patients, and especially neurasthenics, be correctly treated.

I should like now to call your attention to some symptoms-complex in which the knowledge of the connection of certain physiologic processes with the mind is especially important and serves as guide for the treatment. Some of them Prince has designated as association neuroses. I give here three cases and begin with the report of a case seen by me:

A young girl with pronounced stigmata of hysteria has an intense blepharospasm, extreme convergency of the eyes, contraction of the pupils, and, as could clearly be demonstrated ophthalmoscopically, a pronounced spasm of accommodation. These symptoms, taken singly, remain quite incomprehensible. As a whole, however, they can be explained in the following manner: A hysterical girl develops a habitual condition of spasm of the apparatus of binocular fixation on the basis of a light defect of refraction (astigmatism and myopia). This is caused by her bringing objects nearer and nearer to the eyes in order to see them better. As we know, fixation consists in the convergence of the eye-axes, accommodation of the lenses and contraction of the pupils. The patient has made it such a habit to use this apparatus for near-fixation only, that she is no longer able to relax it; in this way this physiologic apparatus detaches itself, so to say, from the mind and acts in a certain manner independently. On the other hand the blepharospasm is secondarily built up on the spasm of the apparatus of fixation. With the improvement, i. e., with the relaxation of this apparatus, a dilation of the pupils went hand in hand. But, since, through former habitual contraction of the pupils, the eye had always received only a small amount of light, the retina became photophobic from the dilatation of the pupils caused by the improvement, and there followed, as a natural protective reflex, a pinching of the eyelids, a pronounced blepharospasm.

The treatment, which I could not follow in this case, has to take into consideration the spasm of fixation as well as the blepharospasm. It should, therefore, consist in the following measures: The use of atropin and the wearing of dark glasses to overcome the photophobia; then gradual substitution of less and less dark glasses and gradual diminution of the doses of atropin, that is, gradual diminution of the paralysis of accommodation and of the mydriasis; with this, an explanation of the state of affairs to the patient.

An exceedingly interesting case of this nature was reported in very classical diction by Dr. Janet before the New York Academy of Medicine.

It was also a case of pronounced hysteria. Dr. Dufour had successfully severed one optic nerve for certain visual disturbances. These continued in spite of the operation. They were referred by the patient to the eye deprived of its optic nerve and made her for most of the time practically blind, although the eye which had not been operated on was perfectly normal.

A careful examination convinced Janet that the patient could see quite normally and without difficulty under certain conditions, and he found out that this was the case with acts of vision for which normally only one eye is used, such as using a telescope or microscope, or in taking aim; that in binocular vision, however, which in normal man represents the rule, those disturbances always took place which made her practically blind. Janet concluded, therefore, that the patient, although one of her optic nerves was completely severed and atrophied, had, so to say, not learned yet to see with one eye only, but continued psychically to use both eyes. Once having reached this conclusion the treatment was clearly indicated. The patient had to be taught to see monocularly always. This end was accomplished by putting before the normal eye a simple tube attached to a spectacle-like frame. This tube played in a way the part of a telescope, although it contained no lenses. It made her see monocularly and thus normally. By gradually reducing the length of this tube the patient was in the end taught to see normally without any tube.

It required much careful studying to arrive at the correct interpretation of the case, and Janet, therefore, had a right to feel amused when on his undertaking the treatment of the case the ophthalmologists who had consulted him asked him to hypnotize the disease away.

If Janet had been consulted in the beginning the patient would have been spared the serious operation of section of the optic nerve which had, indeed, not improved her condition.

I add a third case, which was reported by Dr. Mackenzie[2] of Baltimore and which is classified as a so-called association neurosis:

The case was that of a lady who for years had suffered from violent attacks of rose-cold or hay fever which were accompanied by attacks of asthma. On very small provocation, such as the presence of a rose in the same room, pronounced attacks of the disease were elicited. Dr. Mackenzie, suspecting the true nature of the malady, made the following experiment: He had an artificial rose made which was a splendid imitation of a real one. The next time the patient came to his office, after having inspected the mucous membrane of her nose and having found it free from coryza, the doctor took the artificial rose from behind a screen and held it suddenly before her. Almost immediately a violent attack of coryza developed. Her eyes filled with tears, the conjunctiva became injected, the puncta lacrimæ began to itch, her face became flushed, the nasal passages obstructed; the voice sounded hoarse and nasal. With that there was sneezing, actual secretion of fluid from the nose, a feeling of oppression and slight difficulty in breathing. On examining the patient the nasal passages were found almost completely closed by the swollen and inflamed turbinoid bodies.

The true nature of the rose was later disclosed to the patient with the result that at her next call she buried her face in a bunch of real roses without any detrimental effect.

This case is very instructive. Here we have to do with a disease which every one would certainly regard as organic because all the indications of a real catarrh are present; and probably it was originally caused by exogenous irritating agents, perhaps the pollen of a rose. Later, however, the idea of the rose became strongly associated with the etiology of the disease so that even the aspect of a rose was sufficient to excite, as it were, the disease picture. Thus a disease, originally caused by external irritants could later be originated by psychic concept.

It is clear, therefore, how intimate the relation of the mind to organic processes can be and how important it is therapeutically to recognize this connection.

I have referred previously to the so-called cathartic method of Breuer and Freud. This has been lately modified by Freud to what he designates as the psychoanalytical method. The latter is of such far-reaching importance for the treatment of certain psycho-neuroses and psychoses that a thorough discussion of the same is indicated. It is used in the following manner:

Instead of hypnotizing the patients he now influences them in the waking state. He makes a patient lie down comfortably on his back on a couch while Freud himself, unseen by the patient, takes position behind him. The closing of the eyes, handling of the patient by the physician, anything suggestive of hypnotism, is avoided. Freud then begins to converse with the patient but makes him do the talking, enjoining him to talk at random in relating his history; to say anything that passes through his head even if the patient thinks it of little importance or nonsensical or without bearing on the subject. Freud lays particular stress on patients not

2. Prince. Morton: Association Neuroses, Jour. Nerv. and Ment. Dis., May, 1897, p. 257.

excluding any thought or idea from their communications because of its being painful or embarrassing. He always noticed, on using this method with neurotics, that they exhibit gaps of memory, and the demand to fill these by strong effort and attention meets with great resistance, that is, the ideas presenting themselves are repressed with all the means of criticism until in the end the patients feel direct discomfort when remembrance has really established itself.

Freud sees in the discarded streaks of thought the offspring of the psychic structures (thoughts and impulses) that were crowded out. They are to him distortions of the latter, brought about by the resistance with which their reproduction meets. The greater the resistance the more pronounced this distortion.

The therapeutic work consists in finding the way from the (discarded) streaks of thought to what was crowded out or otherwise repressed, i. e., in tracing the distorted from the distortions. In this manner, even without hypnosis, that which previously was unconscious may be made accessible to consciousness. The end in view is to fill out all gaps of memory, to clear up all mysterious effects of psychic life and by so doing render the continuance and, indeed, a renewal of the disease impossible. It is true that this can never be done completely, but one achieves in many cases the practical cure of the patient in restoring to him the possibility of work and enjoyment.

To reach this end an understanding of the psychic mechanism by means of which the crowding out and distortion develop is indispensable, and Freud has by careful study worked out a special scheme of interpretation, the principles of which are partly expounded in his extensive monograph entitled "Interpretation of Dreams" (*Traumdeutung*).

Of this method of interpretation the following case, which I had occasion to study, furnishes an interesting illustration and shows how simple the therapy can be in some cases when these are correctly interpreted, but how, on the other hand, the cure may be delayed or even frustrated through faulty understanding:

The case is that of a young woman whose husband had gone to America six months previously, and had left his wife with a grumpy, queer old mother. Soon after his departure, but especially in the last two months, the young wife cried much and was nervous. About three weeks before I first saw the patient she followed her husband to America. On the ship her conduct became strange. In every handsome man she saw her husband, but every time she changed her mind immediately, spat out with disgust, and said, "No, he is not my husband; I want my real husband." She maintained, too, that a tall man did lie down by her and acted crazily.

At the examination immediately on her arrival in America she exhibited a contradictory behavior, now laughing, now crying, in which behavior a distinctly erotic element, a half-suppressed coquetry, was manifest. With that she was reserved and even forbidding when questioned concerning the reason for her behavior. She expressed herself once or twice to the effect that she was not a good woman. Frequently her emotional manifestations contrasted strongly with her sayings. One could get no satisfactory information from her concerning time and place and her latest experiences; she always declined to answer by saying, "I don't know," and she said this in a manner as if she did not care and did not want to bother with thinking about it.

One salient point was her indifference towards her baby of about 3 months, suffering with light diarrhea, the care of which she left almost entirely to her mother.

The tall man on the ship whom she had accused of having lain down by her, she now believed to be a brother of hers who was said to have died thirteen years ago. She claimed that he very much resembled a picture that she had of him. She said that this man had been very nice, very noble, and very kind to the sick on board ship.

She showed from the beginning, but especially later, a certain fear, which she often disguised with laughter and jocular remarks, but which was always present and at times became very prominent. Thus she thought on one occasion that she was in a prison; she said she did not know what was to become of her, she did not know what had become of her mother and the baby (the latter were in the adjoining hospital). She thought, too, that an employé wanted to kill her, remarking laughingly that he had acted as if he wanted to cut her head off.

Then again she thought that somebody had followed her to America. This somebody was first a certain Dr. H., whom she had consulted before starting for America, and who was, according to her, angry because she had not gone to see him a second time, as directed. Later it seemed to her that the man whom she had declared to be Dr. H. was perhaps not at all Dr. H., but her uncle, who had left his wife and children in the lurch. It might be he wanted to assault her; at any rate she was afraid of him.

She confounded all kinds of persons. One man she took for Dr. H.; then again, after he had left the room, she asked if he was not his brother's father. Another man she took for her brother's brother because he resembled the man on the ship so much. Again, she took another man for a relative, claiming that he had told her so, while, on the contrary, it was she who had said it a short time before.

Psycho-analytical interpretation of the case: The absence of the husband and of sexual relations form the nucleus for the development of a psychosis with erotic contents and with a certain clouding of consciousness, which blurs the impressions made by external sensory stimuli, weakens the judgment and thus brings out prominently the psychogenic imaginings and dream fancies, making them seem real. In this way occur all kinds of substitutions and the confounding of personalties.

Seeing handsome men awakens erotic feelings. The feeling of modesty and of conjugal fidelity protests against their being aroused, but the impossibility to suppress them creates the wish to, in a way, legitimate them by mistaking those men or one of them for her husband. The need soon becomes a belief in her condition of clouded consciousness. This, however, is suppressed through a higher psychic instance and finds expression in these words, pronounced with a show of great disgust: "No, he is not my husband; I want my real husband." To save the situation in a way she finds a better substitution. The nice, noble, tall man on the ship is not her husband but her brother who is supposed to have died thirteen years previously. This substitution is much more justifiable and more rational and allows the expression of feelings of affection and tenderness. The sexual feeling which is at the bottom finds thereby a legitimate if not sufficient outlet.

The different expressions of fear can also be best explained on a sexual basis, namely, in the feeling of (sexual) guilt evoked by her addressing, so to say, her feelings to the wrong person, in spite of the apparently successfully established self-delusion above mentioned. This feeling of doing wrong finds also expression in her remark that she was not a good woman; and a confirmation of the sexual basis is shown in her fear that the bad uncle who had abandoned his wife and children may have come over to assault her.

The grouping of the confounded persons around two centers is interesting; one of these centers is erotism and the other is the protest against erotism, expressing itself in fear of sexual persecution. The erotic center

is formed by the tall man whom she mistakes for her brother. The other persons whom she confounds are the "father of her brother" and her "brother's brother," strange expressions which, however, become comprehensible if one remembers that said brother takes for her the part of husband. This conception is also supported by her deriving these relationships from the resemblance with the tall man on the ship.

The sexual persecution is represented in the person of the bad uncle who abandoned his wife and children and whom she believes that she recognizes, now in Dr. H., now in different people surrounding her.

The correctness of the interpretation of the described case is confirmed by the fact that after a few visits of the husband the behavior of the patient was so much improved that a speedy recovery could be expected.

It would be making too great a demand on the reader's patience did I try to discuss all the conditions which could be successfully treated by the pyscho-analytical method. Let me mention only that some of the imperative concepts and phobias, certain hysterias, neuroses of fear (Angstneurose) and related conditions can be included in the number. It is true that to carry such treatment out, certain conditions are necessary. The patients must possess a certain degree of education, intelligence and ethical development and must be capable of presenting normal psychic states. The treatment may in some cases take months and even years.

From what I said above, it can be surmised that this method of treatment is not easy to apply. It presupposes a considerable knowledge of psychology, psychiatry and neurology. Wrong application can be as disastrous in its consequences, but of course in a different way, as the wrong application of the *x*-rays. The necessity of this knowledge holds also good for the selection of the cases. Certain diseases of the nervous system, like epilepsy, chorea, tabes dorsalis and other organic diseases of the spinal cord and brain, lie quite beyond the domain of this method. But since it is sometimes quite difficult to distinguish functional diseases, for example, hysteria from organic diseases of the nervous system, the importance of considerable knowledge of the subject is evident because nobody would think of treating brain syphilis, for instance, by the psycho-analytical or any psychotherapeutic method.

The field of activity of psychotherapy is even more extensive than I have here indicated. Dr. Adolph Meyer[3] made some very interesting comparative remarks in this respect, on the development of dementia præcox and other psychoses. Very appropriately he compares certain psychiatric problems with the tuberculosis problem, saying that in the same way that tuberculosis is now recognized in its incipient stages and thereby successfully treated it must be our endeavor to study the psychoses in their development, in their beginnings. In this manner some hope is expressed of suppressing in their beginnings such grave disorders as dementia præcox by education built up on adequate psychologic principles.

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3. Paper read before the N. Y. Neurological Society, from which I here quote from memory.

Mercurial Injections.—N. E. Aronstam, in *Central States Medical Monitor*, December, 1907, states that intragluteal injections of mercury constitute a most efficacious therapeutic measure in tubercular syphilids, pre-eminently in those cases in which the above agent is not tolerated by mouth. Under this method the lesions will invariably disappear and the process may be kept in abeyance indefinitely.

THE PRODUCTION OF DECIDUOMATA

AND THE RELATION BETWEEN THE OVARIES AND THE FORMATION OF THE DECIDUA.*

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Last summer I announced[1] that if an incision is made into the uterus of a guinea-pig at certain early stages of pregnancy, nodules will be formed that have the structure of the decidua of the guinea-pig. Since then these investigations have been continued. In the following I wish to summarize briefly some of the main results obtained:

1. The operative procedure consisted merely in making transverse and longitudinal cuts in the uterus of the anesthetized animal. In order to obtain a large number of deciduomata it is necessary to make many cuts that advantageously separate the continuity of the uterus in different directions. Under these conditions it is possible to obtain a very large number of deciduomata in the uterus of the guinea-pig.

2. The different stages in the development of these deciduomata were established by microscopic examination. In a number of cases serial sections of the nodules were made. These nodules originate through a proliferation of the interglandular connective tissue of the mucosa. The proliferation takes place through mitotic cell division. Occasionally apparent amitoses can be seen. At first a mass of myxoid tissue is formed underneath the epithelium of the mucosa. This newly-formed layer is very rich in blood capillaries, but extremely deficient in glandular structures. The glands of the uterus participate in this proliferation not at all or only to a very slight degree.

As early as twenty-four hours after the operation it is possible to observe the beginning of the proliferative changes. On the third day small myxoid nodules are present, with many mitoses. The size of the cells, especially directly beneath the epithelial layer, is markedly increased. During the following days the cell proliferation continues. After five days small decidual nodules have formed, with many mitoses, which are also present in the endothelium of the blood vessels. The cells beneath the epithelium are very large, but have not yet attained their full size. As in the earlier stages, the blood vessels run at right angles to the myxoid cells. The deciduomata reach their full size ten to eleven days after the operation. Mitoses are still present at that time, but are not so frequent as before. They are usually found, not in the large cells, but in foci of small cells. The cells at this stage have commonly very much increased in size and resemble the decidual cells of the normal placenta. The superficial part of the mucosa frequently becomes necrotic under the influence of the pressure of the nodule, and is cast off. At other places we find inclusions of the surface epithelium in the tumor. This is due to an occasional papillomatous condition of the growth. The epithelium between papillæ may be included in the tumor. In the fully developed deciduomata the structure of the tumor resembles very much that of the ordinary decidua of the placenta of the guinea-pig.

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*The term, "deciduoma" implies that the new formation consists of decidua-like tissue. Those tumors which formerly had been called deciduoma malignum are now almost universally designated as chorionepithelioma malignum.

1. Centralbl. f. allg. Path., 1907, xviii, No. 14.

3. After the deciduomata have reached their full growth the cells very rapidly die and the tumor becomes necrotic. Thirteen days after the operation was the latest period at which a few mitoses could still be seen. In one case, as late as seventeen days after the operation, the deciduomata were still alive, but no mitoses were present in these tumors; in the latter two cases the animals were pregnant at the same time. As a rule, fifteen days after the operation the deciduomata have become entirely necrotic and they gradually shrink.

4. I thought it possible that co-existing pregnancy might prolong the life of the deciduomata. In a series of experiments, therefore, I incised only one horn of the uterus, with the hope that in the other horn pregnancy might develop. In only three cases did I succeed. In two of these, thirteen and seventeen days after the operation, respectively, the deciduomata were still alive; but in the latter case cell proliferation had ceased. In the third case, twenty-one days after the operation, the deciduomata were necrotic, notwithstanding the presence of living embryos in the other uterine horn. Necrosis, therefore, can not be prevented by the co-existence of pregnancy, although it is possible that the life of the deciduomata may be slightly prolonged under these conditions.

5. These deciduomata can not be produced in the uterus of every female guinea-pig. In cases in which they are not obtained the mucosa of the uterus shows merely an edematous, hyperemic condition, without cell proliferation. They can be produced at certain periods after copulation. In eight cases in which the operation was done inside of twenty-four hours after copulation no deciduomata formed. In only one case in which the operation was done eighteen hours after copulation was a trace of decidual tissue detected on microscopic examination.

Nine animals were operated on the second day after copulation. In these animals either no deciduomata developed or those that did develop were very small. In one case the operation was performed three days after copulation, and small deciduomata were found after ten days. Of twelve animals operated on four days after copulation, deciduomata developed in ten. In one case in which the animal was examined twenty days after operation, no deciduomata were found. Possibly, however, a small deciduoma may have been dissolved at a period so long after operation, so that this case can not be fully counted as negative. In the second negative case the animal had been dead a long time before autopsy. This case is probably to be regarded as negative.

Twenty-three guinea pigs were operated on five days after copulation. All of them developed deciduomata. Among eight guinea-pigs operated on six days after copulation seven developed deciduomata. One case was negative. In the latter case the autopsy was made twenty-one days after operation, and the animal had had young ones shortly before the operation. It is possible that in this case also the deciduoma may have disappeared. Thirteen guinea-pigs were operated on seven days after copulation. Twelve of these developed deciduomata. One case was, perhaps, negative. Microscopic examination is still to be made in this case. This negative result may be explained through the special kind of incision used in this instance. Two guinea-pigs operated on eight days after copulation developed deciduomata. Four guinea-pigs were operated on nine and ten days after copulation, respectively. In one case, in which the operation was done not quite nine days after copulation, pregnancy developed, and simultaneously small decidual nodules were found. Two other cases were negative, and in the fourth case deciduomata developed. In five cases cuts were made into the uterus in more advanced stages of pregnancy, but in none of these did deciduomata develop.

From the fourth to the eighth day after copulation deciduomata almost invariably develop, if the correct incisions have been made. Inside the first day after copulation no deciduomata usually develop. On the second day only very small or no deciduomata develop. On the ninth and tenth days after copulation, again, the formation of deciduomata becomes very uncertain; and it is absent in the later stages of pregnancy. There exists, therefore, a definite curve that indicates the chances for the development of deciduomata after copulation.

The optimum lies between five and eight days thereafter, and this corresponds with the time when the uterus normally responds to the stimulation of the ovum with the formation of a decidua.

6. We see, therefore, that at certain stages after copulation the uterus is able to form a very large number of deciduomata, if it is stimulated in the proper way. Preceding copulation is not, however, necessary for the formation of deciduomata. At certain periods after the condition of heat has passed in animals the uterus likewise responds to the proper stimulation with the production of deciduomata.

Fifteen animals were operated on inside of the next ten days after the period of heat. In twelve of these cases deciduomata developed. In two of these the deciduomata were very small, namely, in the cases in which the animals were operated on very soon after the period of heat (twenty-one to thirty-six hours, respectively).

In the other positive cases the animals were operated on from four to six days after the period of heat. In the three other cases no deciduomata developed after the operation. In one of these the operation was done two days after the period of heat, in another three days thereafter, and in the third five days afterward

We know that even experiments performed two days after copulation are not always successful; and in the other two negative cases, namely, three and five days after the period of heat had passed respectively, a special method of incision was used. This incision was also used in a few other cases, and did not yield satisfactory results. In six of these fifteen cases the ovaries were examined microscopically in serial sections, and corpora lutea were found to be present.

7. We found that at a later period than ten days after copulation deciduomata did not develop. Correspondingly, we find that if we operate thirteen to sixteen days after the period of heat, deciduomata almost invariably do not develop. Eighteen animals were operated on at this period. Seventeen did not develop deciduomata. In only one case did the deciduomata develop. It is, of course, not impossible that in this case either a mistake may have been made in determining the period of heat, or some complicating factor was added. In four of these eighteen cases, ovaries of which were examined microscopically in serial sections, no corpora lutea were present.

8. The period at which no deciduomata are formed is followed by another period in which the uterus again becomes responsive.

9. We see, therefore, that animals, at certain stages

of their sexual life, can form deciduomata without a preceding copulation. Here also we notice the presence of a certain curve, the optimum of which lies approximately at four to nine days after the period of heat. From thirteen to sixteen days the chances for decidual formation are almost nil, and then gradually the uterus seems again to become responsive.

10. The ovaries of six guinea-pigs that had been operated on inside of ten days after the period of heat were examined microscopically in serial sections. They all showed the presence of corpora lutea. In all these animals deciduomata developed. The ovaries of five of the guinea-pigs that had been operated on thirteen to sixteen days after the period of heat were likewise examined in serial sections microscopically. In four cases no corpora lutea were found. In one case the corpora lutea had been present. At this time the deciduomata, as I stated above, do not develop. The ovaries of three guinea-pigs that, according to the statement of the breeder, had been in the period of heat inside of ten days (but that did not after operation, develop deciduomata), did not on microscopic examination show the presence of any corpora lutea. Four guinea-pigs that had apparently not been in heat for some time were operated on in the usual way. Only one of these developed deciduomata. Eight guinea-pigs in which the period of heat had not been determined previously were taken at random and operated on in the usual way. In these cases, of course, it is possible that a certain number or the majority of the animals may have been in a favorable condition for the development of the deciduomata, but after operation in seven the uterus healed without the formation of deciduomata, and only in one of them did deciduomata develop.

11. These differences between the results obtained after operation on animals from the third to the ninth day after the period of heat, on the one hand, and those obtained with guinea-pigs operated on at other periods, on the other hand, are so striking that we may conclude that the development of the deciduomata depends on a certain condition in the sexual cycle of the animal at the time of operation.

12. In order to obtain a deeper insight into the causes that lead to this peculiar predisposition to the development of deciduomata, several series of experiments were made. It was possible that the contact of the ovum with the mucous membrane might cause the predisposition of the mucous membrane to the development of the deciduomata. This, however, is very improbable, because the deciduomata can develop in horns of the uterus without the corresponding ovaries containing a corpus luteum. It is, furthermore, improbable, because the deciduomata can develop below the seats of pregnancy. I could exclude this hypothesis with certainty in the following way:

One or two days after copulation, before the ovum had passed into the lower part of the uterus, a ligature was applied to the center of both horns. This prevented the ovum from touching the mucous membrane of the lower half of the uterus. A few days later, the uterus below and above the ligature was incised in the usual way, and in three cases treated in this manner, deciduomata developed both above and below the ligature. We may, therefore, state that the contact of the ovum with the mucous membrane is not necessary for the development of the deciduomata.

13. The second series of experiments that we made in order to clear up the peculiar predisposition of the uterus in certain animals, consisted in the extirpation of the ovaries before the incisions into the uterus were made in guinea-pigs that had been previously copulated. Twenty-nine guinea-pigs were operated on in this way. In twenty-one of them, the incisions into the uterus were made from two to five days after the extirpation of the ovaries. In seventeen of these no deciduomata developed. In one animal there developed only microscopically recognizable deciduomata. Two died prematurely, and one developed an abscess. Of eighteen guinea-pigs, therefore, seventeen were without deciduomata, and one had only a microscopically recognizable deciduoma, although all of them had been operated on at the most favorable time after copulation. In eight guinea-pigs, incisions were made into the uterus immediately after the ovaries had been extirpated, or one day later. In three of them, at most places of incision, no deciduomata developed, and only at one or two places, small microscopic deciduomata were found. In one a somewhat larger microscopic deciduoma developed; the others were entirely free from deciduomata.

From these experiments we may conclude that extirpation of the ovaries in most cases prevents entirely the formation of deciduomata in animals that are operated on at the most favorable period after copulation.

14. In accordance with the results of these experiments it was found that of five guinea-pigs that had been taken from the common stock without any knowledge of the period of heat and whose ovaries had been extirpated, after a subsequent incision of the uterus four did not develop deciduomata. In one case, small microscopic deciduomata were found.

15. In order to rule out the objection that a previous operation had in itself prevented the formation of deciduomata, in three guinea-pigs another series of experiments was carried out, in which the ovaries were merely pulled out of the wound without being extirpated. In all cases a second operation was followed by the formation of deciduomata.

16. In eight other guinea-pigs that had been previously copulated, the ovaries were cauterized at various places several days before incising the uterus. Six of these developed deciduomata. One died prematurely, and in one case a microscopic examination has still to be made to determine the outcome. We see, therefore, that a previous ovarian operation does not in itself interfere with the formation of the deciduomata, if, after the first operation, the uterus is later incised in the usual way during a second operation.

17. These experiments establish the fact that the presence of the ovaries is responsible for the peculiar predisposition of the uterus at certain periods, which enables it to form deciduomata under the influence of certain indifferent stimuli. The question next to be determined was, whether the influence of the ovaries is transmitted through nerves, or whether we have to deal with the effect of chemical substances secreted by the ovaries. In order to determine this problem I transplanted pieces of the uterus of guinea-pigs into the subcutaneous tissue at the proper time after copulation. It was found that in two cases deciduomata developed in pieces of uterus transplanted into the subcutaneous tissue. This makes it probable[2] that an internal secretion of the ovaries is responsible for the above mentioned predisposition of the uterus to form deciduomata.

2. It is very improbable that such a proliferation in the transplanted uterus would take place under any conditions irrespective of the state of the ovaries. Further experiments will decide these points with certainty.

18. Certain facts that have been mentioned before suggest that the corpora lutea which are present in the ovaries after copulation, and probably at certain times after the period of heat, represent that part of the ovary that secretes the substance necessary for the development of the deciduomata. In nineteen guinea-pigs, we, accordingly, attempted to burn out the corpora lutea soon after copulation and, at a second operation, the usual incisions into the uterus were made. One of these nineteen animals died too early to be used. Of the others, four developed good deciduomata; but the microscopic examination of the ovaries showed that not all the corpora lutea had been destroyed. In each of these cases corpora lutea had been left in the ovaries. In the four other cases in which deciduomata were produced, a complete examination of the ovaries has not yet been made. Four other guinea-pigs did not develop deciduomata. Microscopic examination of their ovaries showed the absence of corpora lutea. In one of these four cases one ovary only has so far been examined. In two animals in which only small microscopic deciduomatous areas developed, the corpora lutea were almost entirely destroyed. In four cases no deciduomata developed; but the ovaries have not as yet been examined.

19. In seven guinea-pigs, only one ovary was removed. Five of them developed deciduomata. In two of these cases, the ovaries were examined microscopically and corpora lutea were found in the remaining ovary. In one, no deciduomata developed, and the examination showed that no corpus luteum was present in the remaining ovary. In one case only small doubtful nodules were found, without a microscopic examination of the uterus or ovaries having as yet been made.

20. All these facts show that a certain substance secreted by the ovaries is responsible for the formation of the deciduomata, and make it at least very probable that the corpora lutea represent that part of the ovary which secretes this substance. This latter point, however, can be made certain only by further experiments, which are under way at the present time.

21. A certain substance present in the ovaries is necessary for the production of deciduomata. If, as we found, very small deciduomata can be formed even after the extirpation of the ovaries, it is most likely that a certain amount of this substance is still present in the circulation at the time of the incision into the uterus. We noticed especially the fact that extirpation of the ovaries is followed by the formation of microscopic deciduomata in such cases in which the uterine operation was carried out very soon after the extirpation of the ovaries, and this circumstance speaks in favor of the interpretation just given.

22. The process leading to the formation of deciduomata differs in essential points from the connective tissue proliferation in ordinary wound healing. (a) The production of new cells by mitotic division is incomparably more extensive in the development of the deciduomata. For some time the proliferative energy resembles closely the growth of a malignant sarcoma. (b) Instead of forming mainly connective tissue fibrils, the new cells enlarge and assume more or less the appearance of decidua cells. Scar tissue is not produced. (c) Instead of growing into the wounds and filling the defects, the cells grow upward between the glands of the uterine mucosa and raise the epithelial covering of the uterine mucosa. (d) At a certain stage of the development the whole new formation becomes necrotic.

23. As we stated above, the deciduomata invariably become entirely necrotic twelve to twenty days after operation. This might be due to interference with the circulation. In cases of rapid cell-proliferation the development of the blood vessels does not proceed adequately and frequently we find, therefore, in rapidly growing tumors, areas of necrosis. Such an interpretation can not, however, explain the invariable necrosis of the deciduomata at a certain period of their development. Such a necrosis takes place quite independently of the condition under which they develop; it is always complete, even if at certain places the blood vessel supply is quite sufficient. This necrosis must be compared to the general disappearance of the corpus luteum after the causative factors leading to its development have ceased to exist. We saw that certain substances prepare the uterine connective tissue cells to proliferate and to form decidua. It seems, therefore, evident that the same substances which prepared the cells for the cell-proliferation are necessary for their life. The cells die, as soon as the "growth substances" have disappeared.

24. A problem of great interest which at the present we merely wish to state as such, is the limitation of the proliferation to the connective tissue of the uterus. The subserous or subcutaneous connective tissue which is likewise incised, does not form nodules. Does that depend on a physico-chemical difference of connective tissue cells in different parts of the body, or does it depend on the specific relation of connective tissue cells to certain differentiated cells in their neighborhood, in this case on the influence of the uterine epithelium? The latter interpretation seems to be the more probable one.

25. If as we saw, a certain "internal secretion" of the ovaries is of great significance for the production of deciduomata, we are justified in concluding that it has the same significance for the formation of the placental decidua. The early extirpation of the ovaries and not unlikely the early destruction of the corpora lutea interferes with the normal course of pregnancy, because the substance which is necessary for the development of the decidua is absent.

26. Towards the end of the first week following copulation the ovum implants itself into the uterine wall and causes the decidua formation which is necessary for embryonic production. We have here an instance of an especial adaptation. The uterus responds at the proper time in the proper way to insure the development of the embryos. Our experiments permit us a further analysis of this adaptive process. We saw, first, that an ovum is not necessary for the stimulation of the uterine mucosa—that we have to deal with a two-fold cause; second, that the uterus has the potential power to produce many more placentas than it can ever be called on to produce under normal conditions; third, that the stimulus of the ovum alone would probably be powerless without secretion of the predisposing substance by the ovary. It is especially noticeable that the action of this "preparing" substance becomes potent at the time when the ovum is ready for implantation; but as we saw, even without copulation this substance is secreted and acts on the uterus.

27. In conclusion I wish to point out a certain analogy which exists between these artificially produced deciduomata and a variety of multiple tumors that are limited to certain organs, as for instance, multiple fibroneuromata, enchondromata, symmetric lipomata, or adenomata of the intestinal mucosa; they might be called multiple systemic tumors. The deciduomata represent a type of new formations which I designated

"transitory tumors." If the substance were secreted by the ovaries continuously, instead of intermittently, the tumors would lose their transitory character and would become permanent new growths. In the case of the systemic tumors and of the deciduomata we have to deal with multiple benign tumors of a more or less transitory character affecting one organ or one tissue. We know that the origin of the deciduomata depends on two sets of conditions: (a) That a predisposing chemical substance be produced by a certain organ; and (b) that such a substance having been produced, indifferent stimuli, for instance, traumatisms, are sufficient to produce the tumors. Clinical observation makes it likely that certain tumors, as for instance, sarcomata, have at times been caused by traumatisms. Experimentally, attempts to produce tumors through traumatism or through long continued irritation have never been successful. It may be suggested that such attempts could have been successful only if the necessary "preparatory" substance had been secreted prior to the action of the indifferent stimuli.

As stated above, the new formations which we produced differ in several essential aspects from regenerative proliferation of the connective tissue during wound healing. Furthermore, the processes leading to the formation of deciduomata have nothing in common with so-called inflammatory reactions. Neither do they represent an example of compensatory hypertrophy although there exist cases of compensatory hypertrophy, which apparently almost imperceptibly merge into adenomatous new formations, just as certain hypertrophic processes taking place in the connective tissue in connection with wound healing lead to the production of keloids, which are usually classed among the fibrous tumors. If we injure the perichondrium near the ear cartilage the regenerative processes setting in may lead to the formation of small nests of cartilage. A similar result can be obtained, if we transplant pieces of perichondrium. It is very doubtful whether we should call such small cartilaginous areas, "chondromata." But let us assume that under the influence of an abnormal internal secretion, which suddenly comes into play, the connective tissue of the mucosa of the intestines began to proliferate at circumscribed areas in the neighborhood of places of injury, raising up the epithelium and forming relatively large polypoid out-growths covered by epithelium, we should be much tempted to regard such multiple polypoid out-growths as related to tumor formation, especially if the connective tissue of the mucosa showed a metaplasia into another variety of connective tissue. A sharp line of demarcation between regenerative and tumorous new formations does not exist. We are inclined to use the term "tumor" if the cell proliferation is very marked and limited to a certain circumscribed area and leads to a well defined formation and if—and this is an essential point—we can not entirely account for the tissue proliferation by including it among the regenerative or inflammatory reactions—if there exists an unknown factor leading to the cell growth.

In the case of deciduoma we have found the definite cause for its formation; and it is very desirable to emphasize certain similarities between the deciduoma and various other tumors in order to indicate the possible presence of predisposing "preparing" substances, as the unknown cause of certain tumors. Given such a "preparing" substance, otherwise indifferent stimuli would be sufficient to excite the potential proliferative energy of the tissues. The fact that the deciduomata degenerate as soon as the "preparing" substance ceases to be active is no valid reason for denying the designation "tumor" to these new formations. In order to indicate the ephemeral character of such new formations they may be called, "transitory tumors." Even carcinomata may retrogress spontaneously. As I have pointed out in another paper,[3] the presence of "preparing" substance can only explain the formation of a "transitory tumor" or at the best, of a tumor that grows indefinitely in the same individual in which it originated, but it can not explain the growth of a tumor which can be transplanted into many other individuals in which such a "growth" substance is not likely to be present. In order to explain on such a basis the inoculability of tumors we should have to assume the hereditary transmission of an increased energy of growth to the following generations of tumor cells which thus would be able to continue to proliferate without the further presence of the growth substance in the inoculated animal. The possibility of such a transmission into later generations has not yet been established. Until such a proof has been given we must assume that transplantable tumors carry with them in the tumor cells or in their direct neighborhood the stimulus which enables them to proliferate in a new host. But it is quite possible that a non-transplantable tumor which originated through the action of a "preparing" substance may grow very rapidly and be, therefore, malignant. Transplantable tumors, on the other hand, do not need to be very malignant. As I have pointed out,[4] the degree of inoculability and energy of tumor growth are two distinct properties which do not need to be associated in the same tumor. But the transplantability of tumors depends, in all probability, not only on the presence of a permanent stimulus in or near the tumor cells, but on some other factors, as yet unknown. The presence or absence of such secondary factors might determine the inoculability or non-inoculability of a tumor, even if the essential cause in the tumor formation was the same in both cases.

Clinical Notes

CASE OF PERFORATION OF THE GALL BLADDER IN THE THIRD WEEK OF TYPHOID FEVER;

LAPAROTOMY; CHOLECYSTOTOMY; DEATH AND PARTIAL NECROPSY.*

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Ashurst,[1] in 1908, under the title, "Perforation of the Gall Bladder During Typhoid Fever; Cholecystectomy; Recovery," reports two cases of operations on the gall bladder for perforation during the course of typhoid fever, and analyzes nineteen cases of other operations done during the course of typhoid fever for lesions of this viscus. As such cases are rather rare, and are worthy of record, I desire to report one such case:

Patient.—Frank S., No. 777, aged 28, fireman on a tug, was admitted, Feb. 22, 1905, to the medical wards of the U. S. Marine Hospital at Stapleton, N. Y., under my care.

3. Über einige Probleme der experimentellen Tumorforschung, Ztschr. f. Krebsforsch., 1907, v, p. 17.
4. Über einige Probleme der experimentellen Tumorforschung, Ztschr. f. Krebsforsch., 1907, v. p. 18.
* In the service of Surgeon P. H. Bailhache, U. S. Public Health and Marine-Hospital Service, and is published with his permission.
1. Am. Jour. Med. Sci., April, 1908.

History.—He was born in Austria. Habits, family and previous medical history contained no facts of importance. He had been ailing for about seven days; complained of general malaise, weakness, anorexia, chilly sensations, slight cough, nose bleed two or three times, some pain in abdomen, no diarrhea, no chills. He could not speak much English, and, in the absence of an interpreter, his history was unsatisfactory.

Examination.—Examination showed a well-nourished and developed individual, with dull and apathetic facies, coated tongue, slight cough, rapid and dicrotic pulse; heart, normal; numerous dry râles over both lungs; abdomen, several rose spots on the skin, no enlargement of spleen noted; temperature 39° C., pulse 88, respirations 24.

Diagnosis and Hospital Record.—The case was regarded as probable typhoid and the man was put to bed on symptomatic treatment. Up to March 1 it was noted that he daily grew more apathetic, but without delirium. Slight diarrhea developed and he passed four or five liquid, yellowish stools daily. A fresh crop of rose spots appeared; the temperature was not very high, was very irregular and decidedly remittent; twice it reached 40° C. (rectal) for a brief time, but usually was near 38° C., and on February 28 was normal for nearly twenty-four hours. His bronchitis continued; his pulse and respiration showed nothing worthy of note; no jaundice was noted. Plasmodia malariæ were not found in his blood and a Widal test was negative (February 26); his urine showed nothing of importance; white blood cells, 6,500 (February 28).

March 1: He had a chill, followed by a rise of temperature, for which no cause could be found. March 2 and 3: It was noted that more rose spots had appeared, that he was very dull and at times a little delirious; tongue was dry; his temperature from March 1 to 6 showed a marked daily remission from about 40° C. in the evening to 37.5° or 38° C. in the morning; pulse and respirations continued about as before. March 2, Widal test was negative; March 3, white blood cells, 11,000; March 5 and 6, Widal test gave a partial reaction; March 5, sputum was negative for tubercle bacilli; a blood culture made for tubercle bacilli was also negative. Tubercle bacilli were sought for on account of the absence of a positive Widal test and the character of the temperature curve. The increase in the leucocyte count was thought possibly due to his bronchitis, which was not severe, however. His abdomen had been examined daily, but nothing found.

Perforation.—On March 7, at 7 a. m. (twentieth day of the disease), he was seized with sudden, severe, abdominal pain, more or less general in character and very severe; dorsal decubitus with flexed knees; general rigidity and tenderness, but both seemed greater in the right lower quadrant. Pulse was small, rapid and wiry; facies distressed and anxious. A short time later a differential count of the white blood cells gave polynuclears 85 per cent., small lymphocytes 4.5 per cent., large lymphocytes 10.5 per cent. Hot applications to the abdomen gave some relief, no anodyne was given. It was thought that intestinal perforation had occurred.

Operation.—At 10 a. m., the patient having reacted somewhat, was removed, with his consent, to the operating room, and under ether I opened the abdomen, making a small incision at the outer border of the right rectus muscle, near the umbilicus. On opening the peritoneum there was a slight flow of dark fluid which appeared to be bile; there was general congestion of omentum and intestines, and both showed dark with distended vessels; the cecum, appendix and ileum were rapidly searched for perforations, but none was found. The color of the free fluid in the peritoneal cavity and the bilious color imparted to the sponges directed attention to the gall bladder; this could be reached through the incision and was palpated; several soft adhesions were felt around a fairly well-distended gall bladder, and one of them being accidentally torn, a gush of fluid was felt over the palpating fingers; the incision was lengthened and the gall bladder was found ruptured. The patient's condition, which was not very good in the beginning, was now growing alarming, so the gall bladder, after a hasty examination, was packed off with gauze from the rest of the peritoneal cavity, opened, drained, and a gauze wick inserted, after it had been anchored in the wound by a large suture; the rest of the incision was closed rapidly with through and through sutures; the patient in the meanwhile had been given 750 c.c. of salt solution intravenously.

Postoperative Condition.—His condition improved somewhat after the infusion, and he was removed to bed, where he soon reacted from the anesthetic, but still remained in a precarious state. He was given strychnin sulphate, atropin sulphate and a small dose of morphin sulphate hypodermically, external heat was applied, and a little later hot saline solution was given by the rectum; the salt solution was ordered repeated every six hours and the strychnin, hypodermically, every three hours, depending on his condition. The next morning it was thought that his pulse had improved somewhat in quality, though still very rapid, and that his facies was better; his respirations, however, were increasing in rapidity, and mucus was accumulating in his throat; he had had no nausea or vomiting; there was a free discharge of bile on the dressings, which were also somewhat blood-stained. The strychnin and the saline solution by rectum were continued; very small quantities of liquids and whisky were given by mouth, and he was sponged off every four hours so far as dressings would permit. His temperature, which had reached 40° C. a few hours after the operation, continued steadily at this point. During the afternoon and evening he became delirious and talked a good deal, but was otherwise quiet. During the night his pulse showed a slight increase in rapidity, but remained of good volume under the conditions; his temperature remained high; his respirations reached 42. On the morning of March 9 he was in delirium, more talkative, though still quiet in other respects; pulse, 150, still of fair volume; respirations, 40; general condition, much worse. During the day he steadily grew worse, his pulse lost volume, respirations grew more shallow, lungs filled up, tracheal râles appeared, and at 6:40 p. m. he died.

Necropsy.—The next morning at 10 o'clock a partial necropsy was done. I was unable to be present and the following abstract is made from notes kindly taken at my request, by Passed Assistant Surgeon T. D. Berry of the Public Health and Marine-Hospital Service.

The gall bladder was found well held up in the wound by the retention suture, the gauze wick being still in place; it was found walled off by recent adhesions from the general cavity, and there had been no apparent further leakage of bile into the peritoneum; the gall bladder contained still about 50 c.c. of dark bile and mucus, its wall was generally much thickened, and on its outer surface, near the neck, were two spots much roughened and deeply bile-stained; on opening the bladder these two discolored spots were shown to be perforations due to ulceration; the entire mucous membrane was studded with ulcers, ranging in size from 1 or 2 mm. up to 1.5 or 2 cm. in diameter, and numbering about twenty in all; the ulcers were roundish in shape, with sharply defined, punched out borders and fairly clean bases; the mucous membrane around all ulcers was much undermined, and in one or two places the ulcers communicated with each other under the mucous membrane; the two perforating ulcers were of a dissecting type, obliquely through the wall, forming sort of valve-like openings, which probably accounted for a distended bladder at the time of operation in spite of perforations; no gallstones were found, and all ducts were patent except the cystic, which was found completely occluded about 1.5 cm. from its junction with the hepatic duct, and here for a short distance the lumen was obliterated and the duct was nothing more than a fibrous cord.

The general abdominal cavity presented signs of recent peritonitis, the intestines being very moist and flecked with flakes of lymph; there was also a small quantity of cloudy, purulent looking fluid in the pelvis; the mesenteric lymph glands were uniformly, though not greatly enlarged; spleen was not enlarged, weight 165 gm.; on slitting up the lower ileum general hyperplasia and ulceration of the intestinal lymph follicles was noted. Other organs were not examined.

As for the immediate cause of death, it was thought that the patient's resistance had proved insufficient for the sepsis superadded to his typhoid.

It is much regretted that owing to unfortunate circumstances no cultures were made from the gall bladder either at operation or at necropsy.

It might be added that the anesthetic used is open at least to consideration. At the time, under the conditions, ether seemed to be the choice. It can not be denied, however, that the ether undoubtedly exaggerated the bronchitis, and it is possible that it may have contributed, in some degree at least, to the final fatal outcome.

THE LEPROSY-LIKE DISEASE AMONG RATS ON THE PACIFIC COAST.

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It seems worth while recording that out of over 30,000 rats examined, two have been found ill of the leprosy-like disease due to acid-fast bacilli. This disease was first described by Stefansky,[1] next by Dean[2] of the Lister Institute of Preventive Medicine, and by the last Indian Plague Commission.[3] I am informed that Dr. W. R. Brinkerhoff has also found the disease among rats in the Hawaiian Islands.

Both of the specimens I have encountered were large adult female rats (*Mus decumanus*) . One was found in San Francisco on February 13, and the other in Oakland on April 17. My particular attention was called to the rats by the general subcutaneous congestion; the congestion and hypertrophy of the cutaneous, axillary and inguinal lymph glands; the presence of numerous minute yellowish tubercles in the subcutis; and the irregular nodular thickening of the skin. Externally there was a noticeable alopecia, especially about some of the largest nodular thickenings, which had ulcerated. No fleas could be found on either rat.

No micro-organisms were found in preparations stained with the ordinary anilin dyes. In decinormal caustic soda preparations numerous rod-like bodies were seen. These did not stain with Loeffler's methylene blue but retained the stain in the tubercle method. When colored with hot carbol fuchsin they resisted decolorization with 20 per cent. nitric acid in 95 per cent. alcohol. In such preparations the morphologic resemblance to the bacilli in leprosy was striking, but when less acid was used, for example, 5 per cent., the rods appeared thicker and more like tubercle bacilli. Smears from the skin ulcers showed that these were discharging enormous numbers of bacilli. The rods were in the greatest numbers in the subcutis and lymph nodes. Very few scattered groups could be found in preparations or sections from the liver and spleen.

The histologic changes in the skin were strikingly like those found in leprosy; but the bacilli, and the so-called lepra-cells crowded with them, were much more numerous than in any leprosy sections I have studied.

Owing to accidents my wild rat and guinea-pig inoculation experiments were failures. Two white rats inoculated subcutaneously over two months ago are still under observation and appear to be unaffected.

ADDITIONAL NOTE.—On reading proof of the above I am able to add that I found two more cases of this disease. Both of these very large specimens of *M. decumanus*, a male and a female, were caught in Oakland. The inmates of a store had noticed the female in their basement for some days previous to its capture and set a trap for it on account of its scabby, hairless and sickly appearance. The anatomic findings were as above described, excepting that the male specimen showed no cutaneous ulceration. One flea (*Ceratophyllus fasciatus*, Bosc.) found on the male specimen was ground up on a slide and stained by the tubercle method. It contained no acid-proof bacilli. During the past month Dr. George W. McCoy, U. S. Public Health and Marine-Hospital Service, has found seven similar rats from widely scattered parts of San Francisco. My assistant, Mr. A. Venske, recalls having dissected a number of such rats in old Chinatown, San Francisco, in 1901, although at that time the nature of the disease was unrecognized.

1. Cent. f. Bakt., 1903, xxxiii, 481.
2. Jour. Hygiene, 1905, v. 99.
3. Jour. Hygiene, 1907, vii, 337.

CASE OF BRAIN ABSCESS.

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Patient.—Mr. D., aged 35, bookkeeper, came under my care Nov. 1, 1907.

History.—Previous history was as follows: For some weeks he had been suffering from left earache. The tympanum had twice been incised and a little mucus drained for a short time. Headache had been severe and unrelenting. There was loss of weight, constipation, anorexia and difficulty in passing the urine. The temperature had been running from 98 F. in the morning to 99.5 F. in the evenings. Pulse was not accelerated.

Examination.—Examination showed marked photophobia, mental dulness, a peevish restlessness, no anesthesias, no paralysis, pupils negative, tongue heavily coated, mastoid not tender except one-half inch above and behind the external auditory meatus. Catheterized urine showed no changes. The question of diagnosis lay between abscess of brain and tuberculous meningitis.

Blood Examination.—Dr. Wylie Jones was called in to make a differential leucocyte count. November 2 he reported a leucocytosis of 15,000 with polymorphonuclear count of 90 per cent.

Simultaneously the nurse reported Mr. D. in a severe chill, temperature 103 and pulse 110.

Operation.—Operation on the left mastoid was done at once. The antrum and mastoid cells contained some granulation tissue. The dura was exposed by chisel and rongeur above and behind the ear over an area of a square inch. The dura did not bulge. There was strong pulsation of the brain beneath. The upper mastoid cells were followed back until an extradural abscess of a dram or more capacity was opened. The abscess was just above the sigmoid sinus, one and one-half inches behind the external auditory meatus. Gauze drainage was used. The patient slept most of the following night.

Postoperative History.—On November 3 the patient's temperature was 97 F.; pulse, 70. Catheterization was necessary. On November 4 his temperature was 101 F., pulse 84. The following ten days his temperature ranged from 96.4 to 98 F., and pulse from 62 to 70. His headache was relieved, his appetite returned somewhat, and he appeared brighter. Daily catheterization was necessary. Photophobia persisted. The tongue remained coated.

A few days after the operation, word-blindness and loss of memory for words were discovered. He could not tell his letters. He forgot nouns rather than verbs. He called his ear an eye. Names of near relatives could not be recalled. His automobile was "the thing you ride around in." The rock pile was "where they pound up things."

November 14: There was weakness, stupor, restlessness and refusal to take nourishment appeared. The patient had been very restless all night.

November 15 at 7:45 a. m., the patient's temperature was recorded as 95.2 F. and pulse as "weak." He was decidedly stupid and wanted to be left alone. He said, "I don't know much." He complained of feeling bad, but not of pain. His pupils were negative and no paralysis was discovered. At 1:30 p. m. his axillary temperature was 100.2 F., pulse 92. At 2:30 p. m. his temperature was 101 by rectum.

Second Operation.—At 4:10 p. m., an operation was performed. The first wound in scalp and skull was opened and enlarged. The extradural abscess and mastoid antrum were healed and filled with healthy granulations. The dura bulged in opening over the temporosphenoidal lobe. A crucial incision of the dura was made. The brain pulsated very little. A grooved director entered an abscess about one-half an inch beneath the surface of the brain. This abscess was one inch above and anterior to the extradural abscess. It contained two or three drams of pus. The wound was enlarged by spreading closed artery forceps and soft rubber tube drainage was used, passing through a button-hole in the scalp.

Result.—Temperature records were 97.2 to 98.4, pulse 64 to 70 after the second operation. Two days after the second operation the patient noticed that he could talk much better. His appetite soon returned, and was ravenous; his tongue cleared up. After four days the patient urinated voluntarily. He slept well, had no headache, and was bright, cheerful and happy. Five days after the operation photophobia disappeared. Drainage was used three or four days only.

Subsequent History.—The patient left the hospital in three weeks. He has been doing his work for several weeks. He writes letters correctly; occasionally he hesitates for a word, but is considered entirely well. The time between first and second operations is quite a blank to him, though to his friends he appeared to be nearly himself.

The special features of this case are: First, the mild catarrhal otitis media, though early and efficiently drained, yet with severe sequelæ; second, abscess of distinctive localizing symptoms; and, third, the rapid and perfect recovery from word blindness and aphasia.

Corbett Building.

OXYURIS VERMICULARIS FOUND IN THE VERMIFORM APPENDIX.

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BAR HARBOR, ME.

Parasites found within the vermiform appendix have been so seldom reported that I submit the following case, believing it to be of scientific interest.

Metchnikoff, Becquerel, Natale, Girard and others have reported finding lumbricoids; Bloodgood, round worms; and Rammstadt, the oxyuris.

The case was referred to me for operation by Dr. George R. Hagerthy.

Patient.—Female, white, single, 17 years old, housemaid by occupation.

Family History.—Unimportant, except that father is syphilitic.

Personal History.—Patient had ordinary diseases of childhood. She enjoyed good health until one year ago, since which time she has suffered more or less from intestinal indigestion and constipation.

Present Trouble.—Six weeks before operation patient was seized with colicky pain in right side of abdomen, radiating toward the back. There was nausea and vomiting; no perceptible rigidity of recti muscles; pulse and temperature normal.

Patient improved under treatment, but would relapse when solid food was taken. At time of operation patient's temperature and pulse were normal. There was intermittent pain and marked tenderness at McBurney's point; slight rigidity of right rectus muscle; no nausea or vomiting. Bowels were constipated.

Operation.—The appendix was removed without incident. No adhesions were found and the external appearance of the organ showed evidence of only a moderate inflammatory process.

The appendix was inflated with air and suspended in absolute alcohol for three days. On exposing the lumen by a longitudinal incision, a nest of some six or eight pin-worms was found imbedded in the wall of the organ at the extreme distal extremity. The parasites had penetrated about one-third the thickness of the wall and, no doubt, would have caused a perforation had they been allowed to remain.

The patient made an uneventful recovery.

A MODIFIED ESMARCH CHLOROFORM INHALER.

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Anesthetist to the Eye and Ear Hospital.
PITTSBURG.

The inhaler illustrated herewith was designed primarily with the object in view of allowing the anesthetist the practically free use of one hand for the control of the patient's jaw and the palpation of the facial artery. It also at all times prevents the chloroform from too closely approaching the face, a point which I consider of paramount importance for the safety of the patient and one which is too often neglected. The percentage of chloroform and air may be varied by the adjustment of the sliding arms (A, A′, A″, A‴), which have a range of extension from three-fourths of an inch to one and three-eighths inches, as well as by the rapidity with which the anesthetic is dropped. It will, however, rarely be found necessary to employ the inhaler at anything but its fullest extension.

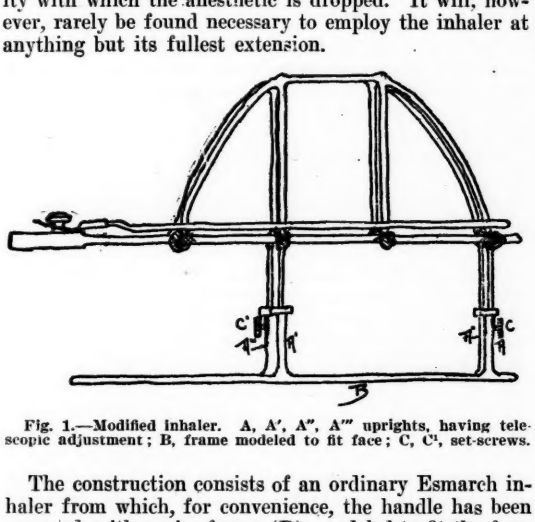

Fig. 1.—Modified inhaler. A, A′, A″, A‴ uprights, having telescopic adjustment; B, frame modeled to fit face; C, C¹, set-screws.

The construction consists of an ordinary Esmarch inhaler from which, for convenience, the handle has been removed, with a wire frame (B), modeled to fit the face, attached below. This frame is connected with the inhaler by four uprights (A, A′, A″, A‴), having a telescopic adjustment controlled by two setscrews (C, C¹). The part of the substage frame nearest the nose serves to hold a piece of gauze over the eyes of the patient.

The inhaler may readily be held in place by hooking the thumb of one hand about one of the uprights while the fingers control the jaw and palpate the facial pulse.

The whole inhaler may be readily cleaned and boiled.

252 Shady Avenue.

Contagion in Eczema.—M. H. Hallopeau, *Bull. de la Soc. Francaise de Dermatologie*, xix, January, 1908, avows himself an adherent of the parasitic theory of eczema, and reports two cases in which the transmission of the disease from one patient to the other was, he thinks, hardly to be questioned. He does not consider the failure to detect the parasite as a valid argument against this theory; there are a number of transmissible diseases the microbe of which is unknown. The inflammation in eczema precedes the vesicle, and if a parasite is sought for it should be sought in the surrounding tissues rather than in the perfected vesicle

FOUR FRONTAL SINUSES.

MARTIN COHEN, M.D.
NEW YORK.

Through the courtesy of Mr. Burchell of the New York Eye and Ear Infirmary I am enabled to report on this interesting anomaly, which, to my knowledge, has not been described in the text-books.

In the skull, which otherwise presented no unusual anatomic features, there were present on each side of the frontal septum two sinuses, one posterior to the other, and each having a distinct and separate nasofrontal duct, which drained into the middle meatus of the nose. A complete bony septum separated the sinuses on each side.

It is conceivable that this anomaly might offer considerable difficulty to the surgeon in the diagnosis and treatment of suppurative conditions of the frontal sinus. If the anterior set only were involved, no unusual features would be present, but simultaneous involvement of the anterior and posterior frontal sinus would lead to a persistence of the suppurative condition even after the radical measures had been adopted, as the existence of additional sinuses would probably not be suspected. Should the condition be recognized by the surgeon, the proper treatment would still offer considerable difficulty. To reach the posterior sinuses by an intranasal operation would be very difficult, while a radical operation on the posterior frontal sinus might prove dangerous (unless it is certain that there is a posterior sinus) on account of the posterior location and the proximity of these sinuses to the frontal lobes of the brain.

It remains to be seen whether the *x*-rays will prove helpful in the recognition of this anomalous condition. At any rate, the possibility of the existence of these additional sinuses should always be borne in mind, especially in cases of prolonged suppuration.

Other anomalies which have come under my observation recently are:

1. No frontal sinuses.
2. Only one large frontal sinus on left side with its nasofrontal duct.
3. Three frontal sinuses; two to the right of the frontal septum situated laterally. These two sinuses were divided by a vertically situated bony septum extending from the anterior wall, roof and floor to the opening of the nasofrontal duct. Both sinuses on the left side emptied into one nasofrontal duct. The left frontal sinus showed no anomaly.

34 East Fifty-eighth Street.

USE OF NEBULIZER PRESSURE IN SPHYGMOMANOMETER.

W. A. RUBLE, M.D.
WASHINGTON, D. C.

I wish to call attention to the advantage of applying the compressed air in a common nebulizer to the sphygmomanometer. By applying the cut-off to the rubber tube of the sphygmomanometer and turning the pressure gauge down low the pressure can be controlled perfectly and the attention of the operator given to detecting the systolic and diastolic pressure of the pulse. The blood pressure apparatus should be placed on the nebulizer stand and the patient seated with the left side to the instrument. The air-cushion bandage should be adjusted to the left arm of the patient, the air pressure controlled with the right hand and the effect detected with the left hand. This plan does away with the necessity of pumping away with the right arm while trying to detect the fine variations of the pulse with the left. It also makes the storage bulb, which is forever bursting just at the critical moment, unnecessary.

AN ECONOMICAL METHOD OF MAKING TUBERCULIN DILUTIONS.

H. J. DAVIDSON, M.D.
SEATTLE, WASH.

Making tuberculin dilutions by the usual methods entails taking a large quantity of tuberculin, 0.2 c.c., thereby making it possible to get but five diluted solutions from 1 c.c., and it is usual to measure it in a pipette of rather large caliber. I deem it worth while to present a more accurate and a more economical method.

The counting pipette for red blood corpuscles is used for measuring the quantity of tuberculin taken, but the tuberculin and diluent are not mixed in the cell of the pipette. My pipette holds 0.9 c.c. Having measured out that quantity of the diluent in a small graduate (5 c.c.), I draw tuberculin up to the mark (0.5) on the stem of the pipette and expel it into the sterile graduate containing the diluent. This gives me a dilution of 1 to 200. Adding to this four equal volumes of the diluent I have a 1 to 1,000 dilution, 0.2 c.c. of which serves as the recommended initial dose. A small sterile glass ball is dropped into the graduate and shaken for a few minutes to get an even mixture.

Far greater economy can be practiced by drawing the tuberculin up to the first mark on the stem of the pipette, in which case I get a dilution of 1 to 1,000 in 0.9 c.c. of the diluent, or only about enough for four doses without any waste. As the dilutions deteriorate in from ten days to two weeks, the practicability of this method to the man who has but one or a few patients under observation is obvious.

The technic is extremely simple and the accuracy of dilution superior to that obtained by using a large caliber pipette. By knotting the distal end of the rubber tube on the pipette it makes an efficient bulb.

606 Eitel Building.

The Exceptional Child.—The criminal, the insane and the neurasthenic in a certain sense are the waste material of civilization from which something useful can be produced if the effort be made while the material is still in the plastic period of childhood. The National Association for the Study and Education of Exceptional Children has been formed to make this effort. In addition to conducting a school for such children where experimental work can be carried out, the association has determined to extend its work by offering to teachers and others, who are fitted to profit by it, a course of instruction in the care and education of such children. A summer course for this purpose has been arranged to be held at the school from July 13 to Aug. 22, 1908. The course is to include both theoretical and practical instruction. The terms of admission are a previous course in psychology covering sixty hours, and three years' experience as a grade public school teacher or its equivalent. Further evidence of special fitness is required, which is to be determined by the educational manager. Further particulars may be had of the secretary of the National Association for the Study and Education of Exceptional Children, Watchung Crest, Plainfield, N. J.

THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION

103 DEARBORN AVENUE . . . . CHICAGO, ILL.

Cable Address . . . "Medic, Chicago"

Subscription price.....Five dollars per annum in advance

[*For other information see second page following reading matter.*]

SATURDAY, JUNE 6, 1908.

THE PRESIDENT'S ADDRESS AND THE ORATIONS.

In his presidential address, Dr. Burrell gives particular attention to a subject now interesting the profession, viz., the education of the public in regard to scientific medicine. There has probably never been a time when man has not taken some interest in the subjects of health and disease, but it has seldom been an intelligently directed interest. The profession, as Dr. Burrell says, has been conservative and it is only in recent years that scientific medicine has developed; therefore judicious publicity is a new duty of the profession to the public. Better results in this line will be attained, he thinks, by teaching thoroughly a few important subjects than by attempting to cover too large a field. Among these subjects he enumerates: Prophylaxis of tuberculosis, need of early recognition of malignant disease, the various forms of infectious disease and means of avoiding them, and the main principles of hygiene and sanitation. When one considers the vast amount of misinformation which is being diffused, the need of instruction of the public in scientific truth is obvious. But when all the truth is not known, we should be careful to tell only the truth and should also guard against the possible conveyance of misconceptions, which is so common when half truths or still mooted points are given to the public; Dr. Burrell insists, therefore, on the importance of judicious editing of whatever is sent out under the auspices of the Board of Public Instruction, whose program was given in THE JOURNAL May 23.

Authorized newspaper and magazine articles should not be the argumentative ones that now appear, many of them excellent in their way, but should be each a calm exposition of the writer's views on the questions of popular interest in hygiene and medicine.

What is said in regard to the part to be taken by the family physician and his function in this work needs no endorsement; he is the direct instructor of the family, especially in those matters which are less suited for lay press or lecture publication. It is, moreover, especially in those matters of hygiene where appetite, social customs or established institutions antagonize the individual or public welfare that the family and personal counsellor, the general practitioner, can be most useful, and the method proposed by the Board of Public Instruction of sending out circular letters and special authoritative monographs to physicians comes well into play. Some such stimulation to the fulfillment of an often neglected duty is one of the urgent needs of the hour.

Dr. Thayer's Oration on Medicine covers a somewhat broader scope, but touches on the same ground in his discussion of the public duties of the physician, which, however, are not limited to his functions as a counselor or instructor. The physician is recognized as an executive officer in sanitary matters, and as a guardian of the public health. Beyond this, however, though not so generally recognized, is a possible range of usefulness in the making of the laws, the execution of which has been so generally entrusted to him. The public has not yet, in this country, at least, come to appreciate how useful a medical training may be in our legislatures and highest councils, where matters concerning the temporal salvation of the people have to be decided. The medical profession has been too self-effacing in this matter and it will be for the advantage of the public when we can have representative members of our profession less exceptionally in our national and state legislatures. "They do these things better in France," where there is always a more adequate representation of the profession in the highest councils of the state, and where the present prime minister is, as Dr. Thayer points out, an educated physician and was once literally one of us when a practitioner in New York. The instruction of the public as to the nature of the medical sciences and arts is taken up by Dr. Thayer, who gives striking illustrations of the mischief caused by lack of such instruction. We may not be entirely guiltless in the matter, and the want of candor in our dealings with patients, which he deprecates, has undoubtedly played a part at times in producing misconceptions. Whoever offends in this way at present goes against the best accepted teachings and there should be no more lack of simplicity or truthfulness in the dealings of the physician with the public or the individual patient. Dr. Thayer's view in relation to regulation of fees according to the means of the patient, may not be acceptable to every one, but it is worth considering. The practice, however justifiable by precedent and custom in another profession, and however right it may appear to some, is a source of adverse criticism which is not altogether agreeable. The other suggestion, possibly unacceptable to some, in many respects, worthy members of our profession, of the impropriety of courting political support for positions for which the applicant is not specially qualified, is always timely. Public sentiment in the profession itself needs some education on this point; there are sometimes those in responsible positions who can not do us credit with all their good intentions, and who can only hold such places by virtue of public ignorance and our own too facile acquiescence. The evil is not peculiar, it exists in all kinds of public service, but we should strive to

avert it. His concluding remarks on the need of better utilization of our hospitals for medical instruction and the ignorant public prejudice preventing it, indicate a line of endeavor for reform that ought to be thoroughly carried out. The "hospital year" for every medical graduate may not be an immediate possibility, but some practical hospital training is not only possible but imperative.

The Oration on Surgery is an illuminating résumé of some of the latest facts and conclusions regarding malignant growths. It may be a surprise to some, but it will be satisfactory to all, to learn that Dr. Crile does not regard cancer as increasing. The prolongation of human life, the lowering death rate from infections and the decrease of infant mortality make, in his opinion, the apparent increase of mortality from this cause really only a relative one. We are therefore only better realizing the extent of this formidable enemy of our race. Another fact he emphasizes is that cancer may almost always be eradicated if operated on early enough. If the surgical opportunity is not lost, approximately 80 per cent. of the favorably situated superficial cancers will show a three years' cure if operated on according to the highest standards of the present day. It would be a good thing, in Dr. Crile's opinion, if the later symptoms of glandular enlargement and cachexia were stricken from the text-books as guide to the diagnosis, which has little but academic interest, once such symptoms have appeared.

Crile's results with hemolysis as an early test for malignancy are encouraging and his suggestion of the possibility of utilizing the immunity principle for cure through transfusion should be followed up and investigated. Of course, he emphasizes the importance of the education of the public in the cancer problem to the extent of making the patient as well as the physician alert to suspect its earlier symptoms. The problem may remain long unsolved in its entirety, but the progress already made should, as he says, "banish despair, give us new hope, and urge us to put forth still greater endeavor to conquer in the end."

It is only in the enlightenment of the public that Dr. Harrington in his oration[1] on State Medicine sees the possible solution of the difficult problem of centralized national regulation of health matters that is now being so vigorously discussed. He shows how every attempt thus far has been hampered by constitutional limitations, and he sees no real remedy except by a constitutional amendment giving the central government authority to act for the common good when it is necessitated by local neglect or inability, and only then. His expressed opinion that the national pure food law is not a health law can hardly be accepted—it is, it is true, a commercial regulation, but its underlying idea is the preservation of the public from harm as much as in the case of quarantine against actual disease. He shows very conclusively that the matter can not be left to the separate states, many of which have not yet learned the value of even keeping a record of vital statistics. Hence, notwithstanding our regard for the rights and privileges of the states, which Dr. Harrington seems to share, the need of a higher supervision is sufficiently obvious. He does not, however, emphasize the fact that with the fullest appreciation of the needs by the several legislatures there would probably still be more or less conflict of laws on account of local interests and jealousies, and if this inconvenience, to call it nothing worse, can only be overcome by a constitutional amendment the sooner the public is educated to the point of adopting such an amendment the better.

1. Dr. Harrington's oration was received too late for publication this week, but will appear June 13.

HETEROPLASTIC FORMATION OF BONE.

It seems to be a general law of pathology that any dead tissue or foreign body which is not impervious to the tissue fluids, and which remains unabsorbed for any considerable time, will be the seat of deposition of calcium salts. Why this infiltration with lime salts should take place has never been ascertained, and there is as yet no agreement as to the chemistry of the process any more than there is concerning the physiologic form of calcium infiltration that occurs in the normal process of ossification. One would expect that the chemistry of ossification might be readily worked out in view of the fact that the chemistry of the calcium salts, the chief participants in the process, is so simple and so well understood; but even this, which seems to be the least "vital" of all the growth processes, has so far entirely resisted investigation.

A very remarkable feature of pathologic calcification is that the lime salts after being deposited do not simply remain as an inert inorganic substance, but exercise a peculiar influence on the neighboring connective tissues, causing them to undergo a transformation so that they take up actively the occupation of bone forming tissues. Wherever the lime salts come in contact with young proliferating connective-tissue they seem to modify its proliferative activities in such a way that instead of ordinary scar tissue formation the result is osteoid tissue and true bone; eventually bone marrow, with all its characteristic blood-forming elements, may make its appearance in this heteroplastic bone. As pathologic calcification may take place in any part of the body, and everywhere seems to have this same peculiar effect on the surrounding fibrous tissue, there is no place where bone tissue may not be found, no matter how strikingly abnormal the presence of bone tissue in that particular place may seem to be. For example, destruction of an eye by suppurative processes is often followed, in case the eye is left in, by calcification of the inflammatory exudate and the thickened coats of the eye; this calcium deposit may then stimulate the surrounding fibrous tissues to take on bone-forming activities, with the sur-

prising result that the eye may become lined with a thin sheet of living bone. Scarcely less surprising is the formation of bone with areas of typical marrow in the heart valves, the aorta, and even in the smaller vessels.[1]

On account of the frequency of calcification of healed tuberculous foci in the lungs, bone formation in the lungs is common. Pollack found nodules of bone in no less than sixteen of one hundred lungs, and Poscharissky found that 60 per cent. of all calcified foci show the presence of bone. At present we have records of heteroplastic bone formation in the pia and chorioid, voluntary muscles, laparotomy scars, urinary bladder, pleura, stomach, liver and lymph glands, besides the sites already mentioned; and now that attention has been called to this matter the transformation of calcified into osseous areas is becoming a common observation. Although this phenomenon has no immediate practical importance, it is of great scientific interest, for it suggests the action of a chemical stimulus, the lime salts, which directly modify the character and results of tissue growth.

THE PARATHYROIDS.

Our knowledge of the existence of the parathyroids is only of recent date, and we are gradually learning something of their function. They are small reddish or yellowish brown ductless organs usually situated behind the lateral lobes of the thyroid gland and within the capsule of the latter. They vary in number from one to five, although usually there are four, two on either side. Each has a capsule of its own and also an independent blood supply through a branch of one of the thyroid arteries. It has been shown that many of the nervous symptoms immediately following removal of the thyroid are due to associated removal of the parathyroid bodies or to the cutting off of their blood supply. Chemical investigation has demonstrated that there is diminished retention of calcium salts in the body in the presence of tetany following removal of the parathyroids, and relief has been afforded under such circumstances by administration of one of the salts of calcium. Dr. Norman Philip Geis[2] has made dissections of thirty-seven parathyroids in twelve subjects, and from his studies he concludes that the glands are essential organs and that in order to save them and to maintain their blood supply in the course of operations on the thyroid only the blood vessels that enter that gland should be cut and the safest method of operating to this end is from above downward.

RACE SUICIDE IN FRANCE.

According to the latest reports, the vital statistics of France show a still further marked decrease in the birth rate—33,000 reduction in 1907 against an average decrease of 12,000 a year for the preceding seven years. The deaths of the same year are said to exceed the births by 19,000. If these figures are correct France would seem to be indeed in the act of committing race suicide, for her population has ceased to be stationary. Many economists have held that a moderate, seeming decrease in the birth rate of a country is a sequence of the thrift of its inhabitants, though whether such thrift tends altogether to national advancement may be open to question. The lines,

> Ill fares the land, to hastening ills a prey,
> Where wealth accumulates and men decay,

may be as applicable here as to the conditions of which Goldsmith wrote. There can be no question, however, that thrift of the tontine type, whereby profits increase with the death rate, is against good public policy in any country.

1. Buerger and Oppenheimer, Jour. Exp. Med., 1908, x, 354.
2. Ann Surg., xlviii, 4, 523.

THE TEST OF PROFESSIONAL STANDING.

An extraordinary statement appears in an article[1] on "Medical Departments in Public Libraries" by Samuel H. Ranck, librarian of the Grand Rapids Public Library. This writer, speaking of the difficulties attendant on the maintenance of such departments, includes among them the commercialism of many doctors to whom "medicine . . . is a business rather than a science or art." He continues: "I recall the instance of a leading physician in one of our large cities who remarked to me in discussing the work of another physician whom I know, 'What is his annual income from his practice? You see, that is the only way we doctors have of gauging the standing of a man.'" We have always supposed such a method of "gauging the standing" of a physician to be confined entirely to the laity. Certainly it will not stand the test of application in the case of many men whose financial success is far from commensurate with the standing their abilities or learning have gained for them among their colleagues. Were this method of "gauging the standing of a man" at all prevalent among his colleagues, we fear that not a few of our most venerated names would have to yield their honored places to some with which we are most familiar through the advertising columns of the newspaper press.

DILATATION OF THE SUPERFICIAL THORACIC VENULES.

The presence of a bow or arc of dilated venules roughly following the attachment of the diaphragm on one or both sides of the anterior chest wall is frequently noted. A number of explanations for this phenomenon have been offered, but most of them fail to explain why the vessels should be more dilated in this region than in any other portion of the chest. Haeberlin,[2] who has made a study of this sign in a series of patients suffering from circulatory and respiratory disorders, has made an interesting contribution to the subject. He believes in the first place that it is most apt to occur in patients whose vasomotor tone is poor and whose arterial blood

1. Medical Library and Historical Journal, September, 1907, p. 212.
2. Deutsch. Arch. f. klin. Med., 1908, Nos. 1 and 2

pressure is low. Some local obstruction is frequently the immediate cause. Rhythmical compression of the chest wall by a hypertrophied left ventricle is, he believes, frequently responsible for stasis in the small veins of the apical region with subsequent dilatation. An exaggerated type of abdominal breathing with marked variations in the diameter of the thoracic outlet may cause more or less obstruction of the veins situated near the costal margin. Haeberlin states that inspiratory filling of these dilated venules can sometimes be observed. Lastly he believes that insufficiency of the right heart, even if very slight, will on account of gravity, affect the inferior vena cava and its tributaries more than the superior vena cava. As the lower intercostal veins empty into the former system through the azygos veins they will be more affected by such insufficiency than will the upper ones. If Steele's theory in regard to the occurrence of hydrothorax in heart disease through obstruction of the azygos veins by a dilated right heart be correct, such an obstruction might also explain a certain proportion of the cases under consideration. Chronic cough or asthma by increasing the intrathoracic pressure would predispose to dilatation of the superficial veins, and tumors, pleuritic adhesions, etc., are frequently responsible for localized obstructions.

THE CHICAGO SESSION.

From the outset the Chicago session demonstrated that it would be all that had been expected of it. Registration began the first thing on Monday morning and kept up in a steady stream all day, so that by the time the registration bureau closed 2,210 had registered, a number exceeding the phenomenal Monday's registration at Boston in 1906 by 663. As we go to press (Wednesday noon) the registration has reached a total of 5,944. In point of attendance, therefore, the Chicago Session of 1908 has set a fresh standard for the annual sessions. Last year the total registration reached 3,713, and the Boston Session, which had the largest attendance of any preceding the present one, was 4,722. The section meetings are wonderfully well attended, and the meeting places are proving decidedly satisfactory. It is not too much to say that the fifty-ninth annual session of the American Medical Association, held in its home city, will go on record as a permanent milestone in the onward and irresistible march of American medicine.

Medical News

ALABAMA.

Sailed for Europe.—Dr. and Mrs. Elbert T. Fields, Ensley, sailed from New York for Europe May 20.

Sentence Confirmed.—The Supreme Court on May 12 confirmed the decision of the lower court whereby Dr. Charles E. Thomas, a colored physician of Anniston, convicted on the charge of malpractice, was sentenced to imprisonment for three years in the penitentiary.

Commencement.—The annual commencement exercises of the Medical Department of the University of Alabama, Mobile, were held May 1. Hon. W. H. Goodwin, Ozark, delivered the salutatory address and Dr. John W. Abercrombie, president of the state university, conferred diplomas on a class of 26. Governor B. B. Comber delivered the address to the graduating class and Dr. Luckey A. Jenkins, Cardiff, delivered the alumni address.

Alumni Meet.—The annual meeting of the Alumni Association of the Medical Department of the University of Alabama, Mobile, was held May 1. The following officers were elected: Dr. Louis W. Johnston, Tuskegee, president; Drs. Charles A. Mohr, Mobile, and Rufus H. Kilpatrick, Camden, vice-presidents; Dr. Percy J. Howard, Mobile, secretary-treasurer, and Dr. S. S. Tam, Mobile, orator.

ARKANSAS.

State Society Meeting.—At the annual meeting of the Arkansas Medical Society, held in Little Rock, May 13 to 15, the following officers were elected: President, Dr. Joseph T. Clegg, Siloam Springs; vice-presidents, Drs. E. Kindle Williams, Arkadelphia; Robert J. Haley, Paragould, and Benjamin D. Luck, Pine Bluff; secretary, Dr. Morgan Smith, Little Rock; treasurer, J. William Scales, Pine Bluff; councilors—second district, Dr. Henry O. Walker, Newport; fourth district, Dr. William H. Blankenship, Pine Bluff; sixth district, Dr. John H. Weaver; eighth district, C. P. Merriweather, Little Rock, and tenth district, Dr. Frank B. Young, Springdale; delegate to American Medical Association, Drs. Charles C. Stephenson, Little Rock, and alternates, Drs. G. A. Warren, Black Rock, and Buchanan Hatchett, Fort Smith. The 1909 meeting will be held at Pine Bluff. The house of delegates endorsed the recommendation in the president's address that the Old State House be converted into the Arkansas State Charity Hospital, and referred the matter to the committee on public health and legislation for action.

GEORGIA.

Would Merge Colleges.—A petition has recently been circulated by the Atlanta College of Physicians and Surgeons, asking that the institution be made a branch of the state university.

Society Election.—Acworth Medical Association was organized April 23 by physicians of Acworth and surrounding country. Dr. William C. Humphries was elected president and Dr. C. W. Burt, secretary.

Societies Amalgamate.—At a joint meeting of the Georgia Medical Society and Chatham County Medical Society, May 13, the two organizations were amalgamated, retaining the name of the older organization, the Georgia Medical Society, for the merged societies.

Commencements.—The seventy-sixth annual commencement exercises of the Medical Department of the University of Georgia, Augusta, were held May 1. The annual address was delivered by Rev. Richard Wilkinson and diplomas were given to 32 graduates by the chancellor of the university, David C. Barrow, Athens.——On April 24 the fifty-third annual commencement exercises of Atlanta College of Physicians and Surgeons were held, when a class of 30 was graduated.——The Atlanta School of Medicine held its annual commencement exercises April 22, graduating a class of 49.

Personal.—After serving 18 years as a member of the Augusta board of health, and for four years as president of the board, Dr. James B. Morgan has retired and has been succeeded by Dr. Eugene E. Murphey. The board adopted resolutions commending Dr. Morgan's services and administration in the highest possible terms. At a meeting of the board May 7, the five city physicians presented Dr. Morgan with a handsome gold ring, in token of the esteem in which his associates hold him.——Dr. J. McFadden Gaston, Atlanta, has been made medical missionary to Lai-chou, China, by the Southern Baptist Foreign Missionary Board, and will leave for his new post of duty about September 1.——Dr. William Z. Holliday has resigned his professorship in the University of Georgia Medical Department and has been elected emeritus professor. ——Dr. Victor H. Bassett has been selected as bacteriologist of Savannah.

ILLINOIS.

Smallpox.—Plainview reports 5 cases.——Elgin is said to have 20 cases.——Four cases have been discovered in Decatur. ——Several cases are reported in and near Abingdon.

Chicago.

Cocain Seller Fined.—Jim King, a West Side Chinaman, was fined $400 and costs May 23 on two charges of selling cocain.

Recognition Restored.—Advice from Dr. James A. Egan, secretary of the State Board of Health, states that recognition has been restored to the College of Medicine and Surgery, Chicago.

Spirits of Physicians Fail Her.—Mrs. Christine Simanek, charged with practicing medicine without a license, and whose line of work is said to have been incantations whereby the spirits of departed physicians were forced to prescribe for her patients, is said to have been found guilty May 27, and to have been fined $100.

Communicable Diseases.—There were reported to the bureau of contagious diseases during the week 507 cases, distributed as follows: Measles, 279; scarlet fever, 68; diphtheria, 59; chickenpox and whooping cough, each 19; typhoid fever, 23; tuberculosis, 33; smallpox, 1, and diseases of minor importance, 8.

Deaths of the Week.—During the week ended May 30 there were 578 deaths reported, 83 more than for the preceding week, but 65 fewer than for the corresponding week of 1907. Tuberculosis caused 72 deaths; pneumonia, 61; violence (including suicide) and heart diseases, each 50; nephritis, 40; diarrheal diseases, 39; cancer, 27; nervous diseases, 25; scarlet fever and measles, each 10; typhoid fever, 5; and whooping cough, 4. The annual death rate per 1,000 was 13.91.

Personal.—It is announced that Dr. William A. Evans has been named as major and surgeon, First Cavalry, Ill. N. G., vice Dr. Morton Snow, resigned.——Dr. Edward A. Fischkin has been chosen president, and Drs. Kate Levy, Benjamin H. Breakstone and Jacob Frank, directors of the Chicago Hebrew Institute.——Dr. Charles W. Espy is reported to be in a critical condition as the result of injuries suffered May 19, when he fell under the wheel of a street car while endeavoring to recover his hat, which had blown from his head. He sustained a compound fracture of the left leg, a fractured rib and serious internal and spinal injuries.——Dr. Ario L. Derdiger was robbed of a diamond stud on a street car, May 18.——The apartments of Dr. and Mrs. John E. Owens, in the Lexington Hotel, are said to have been entered May 15 and $500 worth of jewelry stolen.——Dr. George E. Fosberg sailed for Carlsbad June 2, by way of the Mediterranean, to recuperate from the effects of his recent illness.——Dr. Carl Wagner was elected a member of the German Society for Surgery at Berlin, April 25.

Northwestern University Faculty Changes.—Dr. William E. Casselberry has resigned as professor of rhinology and laryngology and has been made professor emeritus of rhinology.——Dr. Frederick Menge has been appointed professor of rhinology and laryngology and made head of that department.——Dr. J. M. Neff has been made associate professor of surgery and Drs. Frederic A. Besley, H. M. Richter and Allen Kanavel assistant professors of surgery.——Drs. W. R. Cubbins and Frank E. Pierce have been appointed assistants in surgery, and Drs. Charles Matter, John C. Hollister, F. G. Dyas and William C. Danforth, instructors in surgery.——Drs. George B. Dyche, Paul Chester, Charles A. Elliott and A. Davis have been promoted to the positions of assistant professors of medicine.——Dr. W. H. Buhlig has been appointed assistant professor of clinical pathology, Dr. Joseph Brenneman as assistant clinical professor of pediatrics, Dr. Robert T. Gillmore, assistant professor of gynecology, Dr. Prentiss of Harvard University assistant professor of anatomy, and Dr. S. Walter Ransom, associate in anatomy.

INDIANA.

Tuberculosis Hospital.—The state tuberculosis hospital commission has selected a 525-acre site at Rockville for the new proposed state tuberculosis hospital.

Hospital for Colored People of Indianapolis.—The Sisters of Charity at their state convention in Indianapolis, May 19, put on foot a project to build a hospital for colored people of Indianapolis to cost about $20,000.

Communicable Diseases.—The school at Williamsport has been temporarily closed on account of 6 cases of scarlet fever.——Landesville reports 12 cases of smallpox.——There are said to be 35 cases of smallpox in the eastern part of Carroll County.——Several cases of smallpox have developed near Fort Wayne.

April Disease and Death.—During April there were 2,954 deaths reported, equivalent to an annual death rate of 13.2 per 1,000. The death rate for April, 1907, was 12.7. Rheumatism was the most prevalent disease. Bronchitis, tonsillitis, influenza and pneumonia were not so prevalent as in the preceding month. There were 329 cases of smallpox in 35 counties, with 2 deaths. In the corresponding month of last year there were 91 cases in 20 counties, with one death. Ten deaths occurred from diphtheria, and 82 cases were reported. Consumption caused 411 deaths; pneumonia, 333, and violence, 154.

Personal.—Dr. Edward H. Kruse, interne at the Lutheran Hospital, Fort Wayne, will sail for Germany June 1.——Dr. Henry Jameson, Indianapolis, dean of Indiana Medical College, now consolidated with the Indiana University School of Medicine, has resigned.——Dr. Charles C. Terry and family, South Bend, expect to sail for Europe June 20.——At the meeting of the Kosciusko County Medical Society, held in Warsaw, Dr. C. Norman Howard was elected secretary to succeed Dr. Charles A. Underwood, removed from the county.——Dr. C. F. Fleming, Wabash, has been chosen secretary of the Wabash County board of health.——Dr. W. W. P. McMillen, Decatur, narrowly escaped drowning in a flooded creek while making a professional call, May 6.——Dr. Bayard G. Keeney has been appointed assistant medical director of Hord Sanitarium, Shelbyville.——Dr. Martin A. Freed has succeeded Dr. Charles B. Collins, resigned, as secretary of the Clay City board of health.——Dr. Calvin I. Fletcher, Indianapolis, has returned from a trip to South America.——Dr. Garrett Pigman has been appointed health officer of Liberty.

IOWA.

Society Changes Name.—At the annual meeting of Johnson County Medical Association, held in Iowa City, May 13, it was decided to adopt "society" instead of "association" to conform with other kindred organizations in the state.

Communicable Diseases.—Smallpox of a mild type is said to be epidemic in and around Climax, where about 20 cases have been reported.——Smallpox is said to be prevalent in Emerson and vicinity, where the disease was originally diagnosed as chickenpox.——Mason City reports 11 cases of smallpox from one focus.——A case of smallpox was discovered in the University of Iowa, Iowa City, May 20.

Personal.—Dr. E. O. Ficke, Davenport, has been appointed physician of Scott County.——Dr. G. A. Smith, Clinton, has been re-elected high court physician for Iowa by the Independent Order of Foresters.——Dr. Benjamin Courshon has succeeded Dr. Samuel B. Hoskins as physician of Sioux City.——Dr. Charles H. Bower has been elected health officer of Council Bluffs.——Dr. James E. Miller, formerly city physician of Des Moines, has been appointed surgeon in the Soldiers' Home in Tennessee.

State Society Meeting.—At the annual meeting of the Iowa State Medical Society, held in Des Moines, May 20-22, Dr. C. H. Wahrer, Fort Madison, was elected president; Dr. F. G. Murphy and N. C. Schlitz, Des Moines, vice-presidents; Dr. V. L. Treynor, Council Bluffs, secretary; and Dr. William B. Small, Waterloo, treasurer. The attendance reached nearly 500 and was the largest in the history of the society. The society adjourned to meet in 1909 in Dubuque.——The Rush Medical College Alumni of Iowa held a banquet at Chamberlain, May 20, in connection with the meeting of the state society. Dr. G. N. Ryan, Des Moines, was elected president; Dr. Charles W. Henry, Coon Rapids, vice-president; Dr. Lewis, Dubuque, secretary.——At the eleventh annual meeting of the State Society of Iowa Medical Women, held in Des Moines, May 19, the following officers were elected: Dr. Agnes Eichelberger, Sioux City, president; Dr. Lillie Kinnier, Dubuque, and Lena L. Means, Des Moines, vice-presidents; Dr. Evelyn F. Frisbie, Des Moines, treasurer; and Dr. Georgia Stewart, Des Moines, secretary.——At the meeting in Dubuque, May 12, a program of special interest was given, including a symposium on brain tumor and on muscular reflexes, and some unique abdominal suppurations.

LOUISIANA.

Society Meetings.—The Bi-Parish Medical Society, composed of physicians of Red River and Natchitoches Parishes, met at Coushatta, April 11, and elected the following officers: President, Dr. Z. T. Galion, Natchitoches; vice-presidents, Drs. C. E. Edgerton, Coushatta, and Paul Becht, Natchitoches; secretary and treasurer, Dr. E. W. Breazeale, Campti.——The La Fourche Parish Medical Association, after an interregnum of three years, reorganized April 10, and elected the following officers: President, Dr. Thomas Stark, Thibodaux; vice-president, Dr. Paul Tetreau Larose; secretary and treasurer, Dr. H. S. Smith.

Chaillé Anniversary.—The Alumni Association of Tulane University, New Orleans, Louisiana, on May 19, held exercises celebrating the fiftieth anniversary of the official connection of Dr. Stanford E. Chaillé with the medical department of the university. The new Richardson Memorial Medical building, on Tulane campus was dedicated at 3 o'clock, jubilee exercises were held in Tulane theater in the evening. The association proposes to raise fifteen or twenty thousand dollars as a Chaillé memorial fund to establish a chair of hygiene and physiology to be named after Professor Chaillé

who delivered an eloquent address at the laying of the corner stone of the Richardson Memorial Building.

State Association Elects Officers.—At the annual meeting of the Louisiana State Medical Society, May 12-14, 1908, the following officers were elected: President, Dr. E. Denegre Martin, New Orleans; vice-presidents, Drs. J. B. Hargrove, Natchitoches, C. J. Gremillion, Alexandria, and John Callan, New Orleans; secretary, Dr. E. M. Hummel, New Orleans; treasurer, Dr. Charles C. Bass, New Orleans; councilors: First Congressional District, Dr. P. E. Archinard, New Orleans; Second, Dr. E. J. Graner, New Orleans; Third, Dr. Allan C. Eustis, Abbeville; Fourth, Dr. John L. Scales, Alden Bridge; Fifth, Dr. E. Dunbar Newell, St. Joseph; Sixth, Dr. C. M. Sitman, Greensburg; and Seventh Congressional District, Dr. R. O. Simmons, Alexandria. Date and place of next meeting, New Orleans, May 4-6, 1909.

NEW YORK.

Anti-Nostrum Resolutions.—At a special meeting of the Medical Society of the County of Saratoga resolutions were unanimously adopted opposing the use by members of the society of proprietary compounds not approved by the Council on Pharmacy and Chemistry, and urging the members to use their best efforts to secure the cooperation of pharmacists to suppress this evil. Each member of the society was requested to secure a copy of the Manual of the U. S. Pharmacopeia and National Formulary and to be guided by this and by the action of the Council on the use of pharmaceutical preparations.

Aids in Fight Against Tuberculosis.—The State Charities Aid Association, an unofficial organization, which aims to place needy children in families and to aid the State Department of Health, has undertaken active work in cooperation with this body in the treatment and prevention of tuberculosis in cities and rural communities of the state. The local authorities, according to the report just rendered, have maintained supervision over the almshouses and public hospitals in 43 counties in the state. They have also made frequent inspections of the large institutions of the Department of Charities of New York City. The state hospitals for the insane and the state charitable institutions have been visited and increased appropriations have been urged on county supervisors.

New York City.

Personal.—Dr. Peter F. Hughes of Brooklyn has been appointed medical examiner of the finance department, to succeed Dr. C. J. Pflug.——Dr. Francis J. Dudenhausen is said to have been convicted of practicing medicine under an assumed name and sentenced to serve six years and five months in Sing Sing. This is said not to be his first offense.

Osteopath Barred.—Dr. Charles F. Bandel, an osteopath who applied for and was granted a mandamus compelling the department of health to register him as a physician and recognize his certificate of death, gave permission to the department to appeal from the decision. As a result the Appellate Division will have to hand down a decision, and until this is done the appellant will be kept out.

Contagious Diseases.—There were reported to the sanitary bureau for the week ended May 23, 1,555 cases of measles, with 33 deaths; 1,053 cases of scarlet fever, with 40 deaths; 420 cases of tuberculosis, with 201 deaths; 397 cases of diphtheria, with 37 deaths; 32 cases of typhoid fever, with 4 deaths; 24 cases of whooping cough, with 4 deaths; 12 cases of cerebrospinal meningitis, with 9 deaths, and 144 cases of varicella, a total of 3,137 cases and 328 deaths.

Scarlet Fever and Measles Still Prevalent.—Instead of abating, as was expected, these diseases were more prevalent for the week ended May 25 than during the previous week. Measles increased from 1,513 for the week ended May 16 to 1,573 for the following week. There was, however, a slight decrease in the number of cases of scarlet fever. This latter disease is not regarded as epidemic, although there are far more than the usual number of cases and it is unusually severe.

Green Cross for Bellevue Hospital.—The Red Cross Society has made a protest against the use of the red cross emblem on the sides of the Bellevue ambulances and those of the other allied hospitals. The ambulances are now being repainted and a green cross is substituted. The commissioner of public charities has devised a new emblem for the ambulances belonging to the hospitals under his charge, which consists of a set of shining white Mercury's wings traversed by the wands of Æsculapius rampant.

NORTH DAKOTA.

Personal.—Dr. I. N. Wear, a pioneer physician of Fargo, who has been in Italy for several years, has returned and will resume practice.——Dr. William T. Sprake was recently elected mayor of Casselton.——Dr. James P. Aylen, Sheldon, has resigned from the State Board of Health on account of removal from the state.

Medical Society Meetings.—The twenty-first annual meeting of the North Dakota State Medical Association was held in Grand Forks, May 12 and 13. A resolution was adopted endorsing Dr. Baldwin, superintendent of the State Insane Hospital, Jamestown. Fargo was selected as the meeting place for 1909. The following officers were elected: President, Dr. Henry A. Beaudoux, Fargo; vice-presidents, Drs. John E. Countryman, Grafton, John D. Taylor, Grand Forks, and R. Hudson Beak, Lakota; secretary, Dr. Hezekiah J. Rowe, Casselton; treasurer, Dr. John D. Taylor, Minot; and councilors, Drs. Henry M. Wheeler, Grand Forks, Francis R. Smyth, Bismarck, and George A. Carpenter, Fargo.——At the annual meeting of the Steele-Traill Medical Association, held in Mayville, May 11, Dr. Edward C. Haagensen, Hillsboro, was elected president; Dr. William E. White, Mayville, vice-president; Dr. Sigurd A. Berg, Mayville, secretary; Dr. Roberts, Portland, treasurer; and Dr. H. E. Canfield, Hatton, censor.

PENNSYLVANIA.

Philadelphia.

Commencement Exercises.—The sixtieth annual commencement exercises of Hahnemann Medical College were held in the Academy of Music, May 27. The annual address to the graduates was delivered by Rev. Dr. Ethelbert D. Warfield, and the diplomas were presented by Dr. H. L. Northrup, dean of the faculty. The graduating class was composed of 37 men.

Medical Inspectors Dine.—The annual dinner of the Assistant Medical Inspectors' Association of the Bureau of Health was held at Essington, May 28. The meeting was addressed by the director of the Department of Health and Charities, Dr. Joseph S. Neff; Assistant Director Baldwin; chief of the bureau of health, Dr. A. C. Abbot, and chief medical inspector, Dr. Charles A. Groff.

Internes Appointed.—Dr. Joseph S. Neff, director of health and public charities, has appointed the following 19 men to the resident staff of the Philadelphia General Hospital: Drs. J. A. Kolmer, H. J. Hartz, J. F. Dunn, J. D. Aronson, M. Bornstein, W. Ganter, W. H. Schmidt, S. Wexler, D. B. Robinson, C. Stimson, L. Breskman, G. F. Gracey, W. J. Carrington, J. S. Alford, J. M. Fruchter, S. E. Weiner, C. Mazer, T. A. Fortesque and E. H. Funk.

New Tuberculosis Dispensary.—The Germantown Hospital has opened a separate department for the prevention and treatment of tuberculosis and clinics are held every Tuesday and Saturday at noon. Milk and eggs are to be furnished to the needy at wholesale price and lectures on the prevention of the disease are to be given at the hospital every Tuesday and Saturday at 4 p. m. Dr. J. Clinton Foltz has been appointed chief physician to the department, and Dr. W. K. Muller has been selected as his assistant.

Prospective Legislation on Tuberculosis.—The legislative committee of the Pennsylvania Society for the Prevention of Tuberculosis proposes that immediate, concrete steps be taken to influence the proper Pennsylvania and Philadelphia & Reading Railroad officials to follow the example of the Philadelphia Rapid Transfer Company and replace all plush cushion backs and seats in their coaches with leather, pantasote, cane woven or similar coverings, and so abolish a common and unnecessary source of atmospheric contamination in the cars, and infection of the passengers' respiratory organs.

Vital Statistics Law to be Enforced.—Acts of assembly requiring the reporting to the bureau of health of all contagious diseases and the registration of all births and deaths are to be rigidly enforced by the bureau of health. Director of department of health, Dr. Joseph S. Neff, mailed a circular communication May 28, informing the physicians throughout the city of the importance of observing this law. In commenting on this subject, Dr. Neff declared that there are scores of children and grown persons who are officially not alive, and he further stated that not more than from 70 to 80 per cent. of births are registered.

Lowest Typhoid Record in Twelve Years.—According to the report of the health bureau for the week ending May 30, it was shown that the smallest number of cases of typhoid fever were reported for any previous May during the last twelve years, only 28 cases being recorded. There has been a steady decline in typhoid since February. In January the rec-

ord was over 140 cases a week. In February it rose to 160; in March it fell to between 91 and 97, and in April the highest week had 96 cases. The record for May was as follows: Week ending May 1, 68 cases; May 8, 62; May 15, 36; May 22, 44, and May 29, 28.

Health Report.—The total number of deaths reported for the week ending May 30 aggregated 474, including 264 males and 210 females. This is an increase of 19 over the number reported in the previous week and an increase of 4 over the number reported in the corresponding week of last year. The principal causes of death were: Typhoid fever, 4; measles, 13; pertussis, 7; diphtheria, 7; meningitis, 2; consumption, 80; cancer, 30; diabetes, 4; apoplexy, 12; heart disease, 49; acute respiratory disease, 40; enteritis, 27; congenital debility, 4; suicide, 5; accidents, 19, and marasmus, 5. There were 134 cases of contagious disease reported, with 10 deaths, as compared with 173 cases and 19 deaths reported in the preceding week.

Personal.—Dr. Swithin Chandler is seriously ill in the Samaritan Hospital with typhoid fever.——Dr. J. W. Holland sailed for Europe on May 30.——Dr. John H. Girvin is critically ill with appendicitis in the Presbyterian Hospital.——Dr. Margaret F. Butler was elected to preside at the International Congress of Laryngology and Rhinology recently held in Vienna.——Dr. Herbert Norris, who has spent several months in Europe, has returned home.——Dr. M. Goldberg is in a serious condition as the result of a fall sustained May 26.——Dr. W. N. Bradley, in a paper read before the County Medical Society May 27, criticised the methods of the laboratory of the bureau of health and declared that the examinations of diphtheria cultures made by that department are not reliable and are often farcical.

TEXAS.

Powers and Duties of Boards of Health.—In reply to inquiry by State Health Officer Brumby, the assistant attorney general of the state summarizes as follows the powers and duties of boards of health for unincorporated towns and villages: "The powers are conferred and the duties enjoined on the board to secure the preservation and promotion of the public health by the enforcement of all necessary and proper sanitary regulations, and the suppression, amendment or removal of all conditions detrimental to the lives and health of the people, and in view of the importance of the interest confided to the care of such health boards, the laws conferring these powers receive a liberal construction in aid of the beneficial purposes of their enactment."

State Health Officers Organize.—At a meeting of the Association of Health Officers of Texas, held in Corpus Christi, May 14, the following officers were elected: President, Dr. William M. Brumby, Houston, state health officer; district vice-presidents—first district, Dr. Don J. Jenkins, Daingerfield; second district, Dr. Holman Taylor, Marshall; third district, Dr. Burrel J. Hubbard, Kaufman; fourth district, Dr. William C. Bryant, McKinney; fifth district, Dr. J. F. Florence, Dallas; sixth district, Dr. William C. Blalock, Kosse; seventh district, Dr. Edward B. Parsons, Palestine; eighth district, Dr. Joseph W. Scott, Houston; ninth district, Dr. Judson M. Andrews, Wharton; tenth district, Dr. Edward M. Thomas, Georgetown; eleventh district, Dr. Marcus P. Smartt, Eddy; twelfth district, Dr. Rufus B. West, Fort Worth; thirteenth district, Dr. J. F. Wilkins, Willington; fourteenth district, Dr. Louis G. Wille, New Braunfels; fifteenth district, Dr. William W. MacGregor, Laredo, and sixteenth district, K. W. Blazell, Ballinger. The society passed resolutions that the legislature should be asked to make an appropriation of not less than $100,000 for the construction, establishment and maintenance of a sanatorium for the care and treatment of tubercular patients residing in the state.

Society Meetings.—The Alumni Association of the Medical Department of the Southwestern University, Dallas, was organized April 30, with the following officers: President, Dr. Sessler Hoss, Muskogee, Okla.; vice-president, Dr. W. B. Carrell, Dallas; and secretary-treasurer, Dr. J. H. Black, Dallas.——The physicians of West have organized a medical society, with the following officers: President, Dr. A. L. Wilie; vice-president, Dr. Sevier E. Snodgrass; and secretary, Dr. G. A. Pazdral.——The physicians of Goliad County met in Goliad, April 27, and organized a county medical association, with the assistance of Dr. Walter Shropshire, Yoakum. The following officers were elected: Dr. Robert R. LeMaster, Goliad, president; Dr. Columbus L. O'Quinn, Weesatche, vice-president; Dr. R. Walter Smith, secretary-treasurer and delegate to the state association; and Drs. J. M. Yarborough, O'Quinn and Smith, censors.——At the semiannual meeting of the Frisco-Central Medical Society, held in Dublin, Dr. James H. Wysong, Hico, was elected president; Dr. W. E. Sturgis, Stephenville, vice-president; and Dr. Charles H. McCollum, Hico, secretary-treasurer (re-elected).——At the April meeting of the Williamson County Medical Society Dr. James C. Anderson, Granger, was elected delegate to the state association, and Dr. Joseph A. Holloway, Roundrock, alternate; and Drs. W. T. Jones, O. B. Atkinson and A. Nowlin were appointed a committee of public health and legislation.——At the April meeting of the Bexar County Medical Society, in San Antonio, Drs. Franklin E. Young and Byron F. Kingsley, San Antonio, were elected trustees to fill vacancies.——At the annual meeting of Denison Medical Association Dr. Edward L. Seay was elected president; Dr. Daniel Ross, vice-president; Dr. Addison A. Blassingame, secretary; and Dr. Elannus R. Birch, treasurer.

VERMONT.

Society Meeting.—At the annual meeting of Franklin County Medical Society at St. Albans, May 13, the following officers were elected: President, Dr. A. Lincoln Cross, Swanton; vice-president, Dr. Alan Davidson, St. Albans; secretary-treasurer, Dr. Edwin A. Hyatt, St. Albans; and delegates to the state medical society, Drs. George C. Berkley, St. Albans; J. Reynolds Patton, Fairfield; Fred S. Hutchinson, Enosburg Falls, and E. Merriman Brown, Sheldon.

Physician Found Guilty.—Dr. George B. Hunter, Brattleboro, charged on 311 counts, with issuing prescriptions for liquor when he had reason to believe that the liquor was not wanted for medicinal purposes, is said to have pleaded guilty and to have been fined $200 and costs.——In the suit for slander brought by Walter E. Howe against Dr. Stephen F. Dunn, Wilmington, in which damages of $5,000 were claimed, the jury is said to have returned a verdict for the plaintiff, May 13, with damages of $2,000.

VIRGINIA.

Society Meetings.—At the annual meeting of the Medical Society of Northern Virginia, held in Alexandria, May 15, Dr. Samuel W. Maphis, Warrenton, was elected president; Drs. Frederick M. Brooks, Swetnam, and Aurelius R. Shands, Washington, D. C., vice-presidents; and Dr. Llewellyn Powell, Alexandria, secretary-treasurer.——At the annual meeting of the Piedmont Medical Society, held in Fredericksburg, the following officers were elected: President, Dr. John W. Scott, Gordonsville; vice-presidents, Drs. Montie L. Rea, Charlottesville, and Hugh T. Chelf, Culpeper; secretary, Dr. Lewis Holladay, Orange; and treasurer, Dr. John T. Walker, Barboursville.

WASHINGTON.

Entertain Fleet Surgeons.—The surgeons of the Atlantic fleet were entertained by the physicians of Seattle at the Perry, May 25. Dr. William H. Shannon acted as toastmaster and Surgeon Charles F. Stokes, commander of the hospital ship *Relief*, replied for the visitors.

Alien Detention Hospital to be Established.—The application of the Japanese Humane Society, endorsed by the King County Humane Society, has been favorably acted on by the inspector in charge of the United States immigration service, and a detention hospital for aliens will be established at Seattle.

Personal.—Mr. L. M. Woodcock has resigned as milk inspector of Seattle after having filled that office for eight years, and Gus Henderson, formerly first assistant, has been appointed acting inspector.——Dr. F. M. Van Snyder has been arrested in North Yakima for obtaining money under false pretenses in Seattle.——Dr. Willis Hall has been appointed assistant health officer of Seattle.

GENERAL.

Gastroenterologists Elect Officers.—At the eleventh annual meeting of the American Gastroenterological Association, held at Chicago, June 1-2, 1908, the following officers were elected: President, Julius Friedenwald, Baltimore; first vice-president, David L. Edsall, Philadelphia; second vice-president, William Gerry Morgan, Washington, D. C.; councilor, John P. Sawyer, Cleveland.

Neurological Officers Elected.—At the annual meeting of the American Neurological Association, held in Philadelphia during the past week, the following officers were elected: President, Dr. S. Weir Mitchell, Philadelphia; vice-presidents, Drs. Pearce Bailey, New York and Frank W. Langdon, Cincinnati; secretary and treasurer, Dr. Graeme M. Hammond, New York

City; and councilors, Drs. Henry M. Thomas, Baltimore, and Charles W. Burr, Philadelphia.

American Academy of Medicine.—At the annual meeting of the Academy, May 30 and June 1, the following officers were elected: President, Dr. Helen C. Putnam, Providence, R. I.; vice-presidents, Drs. Charles S. Sheldon, Madison, Wis.; L. Harrison Mettler, Chicago; Joseph K. Weaver, Norristown, Pa., and Norman Bridge, Los Angeles, Cal.; secretary and treasurer, Dr. Charles McIntire, Easton, Pa., and assistant secretary, Dr. Alexander R. Craig, Philadelphia.

American Neurologic Society Elects Officers.—The Thirty-fourth annual meeting of this society was held at Philadelphia, May 20-22. The following officers were elected: President, Dr. S. Weir Mitchell, Philadelphia; first vice-president, Dr. Pearce Bailey, New York; second vice-president, Dr. F. W. Langdon, Cincinnati; secretary and treasurer, Dr. Graeme M. Hammond, New York; councilors, H. M. Thomas, Baltimore, and Charles W. Burr, Philadelphia. The next meeting will be held in New York, the date to be determined by the council.

American Gynecological Society Elects Officers.—At the thirty-third annual meeting of this society, held at Philadelphia, May 26-28, the following officers were elected: President, Dr. J. Riddle Goffe, New York; first vice-president, Dr. Howard A. Kelly, Baltimore; second vice-president, Dr. Malcolm McLean, New York; treasurer, Dr. J. Wesley Bovee, Washington, D. C.; secretary, Dr. Leroy Broun, New York; members of the council, Dr. George Tucker Harrison and Dr. J. Montgomery Baldy, Philadelphia. New York was selected as the next meeting place.

Railway Surgeons Meet.—At a meeting of the surgeons of the Norfolk and Western Railway, an organization known as the Railway Medical Society of Company Surgeons, Norfolk and Western Railway, was formed. The following officers were elected: President, Dr. Joseph A. Gale, Roanoke; vice-presidents, Drs. E. W. Cowan, Radford, Va.; Henry D. Hatfield, W. Va.; Stephen S. Halderman, Portsmouth, Ohio, and Charles L. Summers, Winston-Salem, N. C., and secretary-treasurer, Dr. Thompson M. Baird, Crewe, Va. A loving cup was presented to the president, who has been chief surgeon of the railway for many years.

Medical Interneship.—The United States Civil Service Commission announces that examinations will be held June 17, 1908, at a number of designated places in the United States, to secure eligibles from which to make certification to fill two and possibly three vacancies in the position of medical interne (male) and one vacancy in the position of medical interne (female), at $600 per annum each and maintenance in the Government Hospital for the Insane, Washington, D. C., and vacancies requiring similar qualifications as they may occur. The age limit is twenty years or over. Applicants must be graduates of more than eighteen months' standing of a reputable medical college, must be unmarried, and must be citizens of the United States. Applications should be made to the United States Civil Service Commission, Washington, D. C.

The International Tuberculosis Congress.—In accepting the presidency of the International Congress on Tuberculosis, to be held in Washington, Sept. 21 to Oct. 12, 1908, President Roosevelt assures the officers of the congress of his interest in making this the greatest and most fruitful congress which has yet been held. He calls attention to the great economic loss caused by tuberculosis and urges that improvement will be in ratio to the promptness with which instruction as to the curability of tuberculosis can be inculcated into the minds of the people and ingrafted on to our customs, habits and laws. Dr. Edward L. Trudeau has been elected honorary president of the congress, and the list of vice-presidents who have agreed to serve includes Vice-President Fairbanks, Speaker Cannon, Governors Gillet of California, Buchtel of Colorado, Woodruff of Connecticut, Deneen of Illinois, Hanly of Indiana, Cummins of Iowa, Hoch of Kansas, Wilson of Kentucky, Cobb of Maine, Crothers of Maryland, Warner of Michigan, Johnson of Minnesota, Noel of Mississippi, Folk of Missouri, Floyd of New Hampshire, Fort of New Jersey, Hughes of New York, Glenn of North Carolina, Burke of North Dakota, Harris of Ohio, Chamberlain of Oregon, Stuart of Pennsylvania, Ansel of South Carolina, Patterson of Tennessee, Cutler of Utah, Proctor of Vermont, Swanson of Virginia, and Dawson of West Virginia. The German committee of arrangements for the Congress has a membership of over one hundred and fifty. The list includes some of the highest dignitaries of the empire. Dr. von Bethmann-Hollweg, the president of the committee, is the Imperial Secretary of the Interior and the vice-president of the Prussian Ministry of State. The vice-presidents are Count von Lerchenfeld, royal Bavarian state counsellor and ambassador plenipotentiary, and Baron von Knesebeck, royal master of ceremonies and chamberlain to the empress; and the treasurer is Ernst von Mendelssohn Bartholdy, a member of the Prussian Diet. Another distinguished member of the committee is Victor, Prince of Hohenlohe and Corvey and Grand Duke of Ratibor. Drs. von Leyden, B. Fränkel, Orth, Baginsky, and Nietner constitute the central commission, and others named on the list include Dr. Robert Koch, Dr. Emil von Behring, Dr. A. Fränkel, Dr. Richard Neisser, Dr. Lydia Rabinowitsch-Kempner, Dr. G. Pannwitz, Dr. Schottelius, Dr. Abb, secretary of the civil cabinet of the emperor at Berlin; Dr. Bumm, president of the Imperial Board of Health; and Dr. Schjerning, general chief of the Army Sanitary Corps and of the medical division of the War Department. A committee of sixty-four members has been appointed to arrange for the part Belgium will take in the congress and in the exhibition to be held in connection with it. M. Beco, the governor of Brabant, is honorary president and Dr. Dewez, president of the Belgian Anti-Tuberculosis League is president of this committee. Other members of the committee are M. Velghe, director-general of the Ministry of Agriculture; Dr. Van Ryn, secretary-general of the Belgian Anti-Tuberculosis League; Dr. Bordet, director of the Pasteur Institute at Brussels; M. R. Waracqué, Dr. Cousot and Dr. Descamps, all of whom are members of the Chamber of Representatives; Dr. Devaux, inspector-general of the Department of Health and Hygiene; Dr. Courtoy, president of the Provincial Medical Commission of Namur; Dr. Dethier, director of the Anti-Tuberculosis Dispensary at Namur; and Dr. Wouters, director of the dispensary at Louvain.

FOREIGN.

Giemsa and Prowacek Go to Brazil.—The Brazilian government has contracted with Giemsa and Prowacek of Hamburg for a year's work at the Hygienic Institute at Rio de Janeiro.

Festival Meeting in Honor of the Foundation of the International Cancer Research Society.—On May 23 a festival meeting of the German Central Cancer Research Committee was held at Berlin, and papers were read by Borrel of the Pasteur Institute at Paris, Dollinger of Budapest, Jensen of Copenhagen, and Podwyssotzki of St. Petersburg, dealing with various phases of experimental and clinical cancer research and statistics.

Cholera in India.—Consul-General Michael reports from Calcutta that cholera periodically makes its appearance in the coal fields of Bengal, when the tanks from which the natives get their water for domestic purposes, and at which they perform their ablutions, are drying up. It also appears after the first fall of rain has commenced to fill the tanks. The water running over the surface of the earth carries all sorts of pollutions with it. The tanks in the neighborhood of one mine where nearly 600 natives are located became dry or were filled with small quantities of stagnant slimy water. The water pumped from the mines runs into ditches or over the surface of the soil, no effort being made to collect it. There are three wells, one at the manager's bungalow, and two at his assistants' bungalows. Cholera broke out and the natives died at the rate of 20 a day. They are not allowed to get water from the wells used by Europeans, hence the only alternative was to use the remaining water and die or run away. They chose the latter. A virulent outbreak of cholera is devastating the coal fields from Asansol to Jherria, and collieries are shutting down for want of labor, as the miners fly from the scourge. At one place 80 deaths were reported in three days.

Organization of a Colonial Institute at Hamburg.—The German authorities have organized a central institute at Hamburg to train officials for the German colonies and protectorates, and to centralize all the scientific and economic efforts on behalf of the colonies. In order to keep the institution in close touch with commercial interests, three members of the chamber of commerce are delegated to act as an advisory board in all questions that may arise, and as the intermediary between the institute and the senate commission. Chairs are to be organized for astronomy, botany, geography, geology, history, jurisprudence, tropical medicine, ethnology, political economy and zoology in their relations to the colonies, with all the practical branches of these sciences. The Imperial Colonial Office is to send to the institute at least 20 officials each year for an annual course of instruction, and pay for each about $45 the semester. The lectures are open to merchants and others, and a special diploma is given to all those who complete the course. The city of Hamburg at present bears the cost of maintenance, but state aid is guaranteed in case

the scope of the institute is enlarged or it develops beyond the present facilities. The term commences Oct. 1, 1908. Further details are given in the *Deutsche med. Wchnschr.*, May 14.

The German Surgical Congress.—The thirty-seventh congress of the German Surgical Association was held at Berlin the last week in April. The results to date of the numerous innovations in the field of surgery presented during the last year—all of which have been duly chronicled in THE JOURNAL—were related by various speakers giving both experimental and clinical experiences. Trendelenburg suggests operative treatment of embolism of the pulmonary artery by removal of the embolus with dressing forceps after turning back a segment of two ribs. He has succeeded in doing this on calves. Fränkel ascribes embolism to infection, either from the wound or tonsils. Eiselsberg gives heart tonics before operating, for prevention of embolism, in the possibly predisposed. He has had 57 cases in 6,800 operations, including 23 of the pulmonary artery. Even in apparently hopeless embolism, he says, analeptics may yet do good service. The embolus was generally in the smaller branches of the pulmonary artery. Meinert ascribes thrombosis to the loss of water. He begins three days before the operation to have the patient drink large quantities of water, and keeps this up afterward, and has no thrombosis. Olshausen thinks that the vessels may be injured by the weight dragging on the knees in the Trendelenburg position, and now avoids this, using a support for the shoulders instead, and has had no embolism since introducing this modification, not even in the course of 118 myotomies. Kocher reported successful transplantation of thyroid in the bone marrow of the tibia, and Garré, of the parathyroid bodies. The combined scopolamin-morphin anesthesia received considerable favorable mention, but Neuber mentioned one case of fatal pneumonia which he attributed to the long scopolamin drowsiness. Bier described a new method of local anesthesia. After expelling the blood from the limb, he ligates it above and below the field of operation. In this field he then injects into some large superficial vein from 100 to 150 c.c. of the anesthetic solution and total analgesia follows almost at once. After the operation he removes the peripheral ligature, and loosens the central one until the arterial blood begins to flow, then tightens it again and sutures the wound. The anesthetic penetrates the walls of the vein or is bound and is only slowly absorbed. Motor paralysis sometimes occurs during the anesthesia. Dönitz said that by-effects can be avoided with spinal anesthesia, if the fluid is warmed to 30 or 40 C. (86 to 104 F.). Excellent results were reported from removal of a tumor in the hypophysis, acromegaly subsiding in a case reported by Hochenegg. The discussion showed that hypophysis tumors are generally malignant. Payr reported a case of hydrocephalus successfully treated by transplantation of a piece of the saphenous vein, draining the lateral ventricle into the longitudinal sinus. He found that blood vessels bear transplantation well. The passage thus provided, lined with endothelium, conveys the fluid back to the blood. The pressure in the blood in the sinus was no higher than the pressure in the effusion in the ventricle, in his case. Brauer reported success in 40 out of 65 cases of pulmonary embolism, gangrene or phthisis in which he induced an artificial pneumothorax. No difference from the physiologic standpoint between the effects of overpressure and underpressure in the pneumatic cabinet or otherwise induced could be discovered by experimental research, as reported by Dreyer and others. Lexer's success in transplanting entire joints attracted much attention, as also the lightning or fulguration treatment of cancer as adjuvant to the knife. Some of those who formerly advocated allowing the patients to get up early after laparotomies have now given up the practice and merely insist on respiratory exercises and massage of the extremities from the first day. Gilmer has enhanced the effect of spinal anesthesia by adding 3 per cent. of gum arabic. In an experiment on himself he thus induced total analgesia with a tenth of the usual dosage, but he suffered from severe headache that night.

LONDON LETTER.

(From Our Regular Correspondent.)

LONDON, May 23, 1908.

A Bureau for the Study of Sleeping Sickness.

With the cooperation of the Sudanese government and the Royal Society, the British government has decided to establish a bureau in London for the collection and distribution of information with regard to sleeping sickness. The bureau will be under the direction of an honorary committee of management appointed by the secretary of state for the colonies and will be composed of the following: Sir J. West Ridgeway (chairman), Sir Patrick Manson, Sir Rupert Boyce, Dr. Rose Bradford, F.R.S. (representing the Royal Society), Col. D. Bruce, F.R.S., and others.. The publications of the bureau will be divided in two classes, scientific publications for the use of those engaged in research work, or in the medical administration of the infected districts and less technical publications for the use of government officials, missionaries, and others in the infected districts. An important work will be the making of a map of the whole of tropical Africa, showing the distribution of the disease and of the different species of blood-sucking insects capable of conveying it. For the present, the duties of the paid director will be undertaken by Dr. A. G. Bagshawe of the Uganda medical staff.

Honor for Sir A. E. Wright.

Amid the heartiest congratulations from the large number of physicians present at the annual *conversazione* of the Medical Society of London, Sir A. E. Wright was presented with the Fothergillian gold medal. This medal is awarded triennially to the man who has done exceptionally valuable work in some branch of practical medicine or surgery. In 1803 the first Fothergillian gold medal was presented to Edward Jenner, the discoverer of vaccination. It is, therefore, very appropriate that a century later the society should honor one who by his work on opsonins and vaccines has, more than any other man, extended Jenner's work.

Promotion of Uniformity in Hospital Statistics.

In the section on state medicine of the Royal Academy of Medicine in Ireland, R. F. Tobin, surgeon to St. Vincent's Hospital, has brought forward a valuable scheme for securing greater uniformity in hospital statistics. It is already in use in preparing the army medical service and has been found to work well. It is based on the "Nomenclature of Diseases," a work issued every ten years by the Royal College of Physicians and the standard authority on medical names. Mr. Tobin suggests that in the register of every hospital beside the column for the names of diseases there should be a column for the numbers appended to the diseases in the official nomenclature. This would afford a ready means of grouping the diseases in the preparation of the annual returns and would enable the latter to be compiled by clerks without any medical knowledge. The scheme has already been adopted by nine of the Dublin hospitals.

Medical Socialists.

In recent years socialism has made considerable progress in Great Britain and Ireland, but the number of its followers is still insignificant and there is little prospect of it becoming the danger to society which many alarmists assert it is. A novel phase in the movement is the formation of a medical organization. Drs. Cox of Gateshead, Davidson and Haden Guest of Llanfairfechan and Ferdinand Rees of Wigan have issued an appeal to the members of the profession who are socialists to form a special organization. The objects to be promoted are the nationalization of the profession and the socialization of its education. The latter part of the program involves one much-needed reform of which there is not the slightest prospect in this very conservative country—the institution of a one-portal system of entry to the profession.

Illegal Cremation.

A physician has been prosecuted for illegal cremation and fined $50 and $26 costs under peculiar circumstances. His wife, while suffering from measles complicated by bronchitis, gave birth to a still-born child and died the same evening. Cremation took place on the basis of a certificate referring to only one body. When the sides of the coffin were burned away the superintendent of the cemetery saw that there were two bodies. The child had been placed in the coffin. There was no reason why the two bodies should not have been cremated together if there had been the necessary certificates.

British Town and Housing Bill.

Mr. John Burns, president of the local government board, has introduced a bill to provide domestic conditions which will improve the health, morals and social conditions of the working classes. It aims at securing "the home healthy, the house beautiful, the town pleasant, the city dignified and the suburb salubrious." There is great need for such a bill, as the British people are more and more becoming a race of town dwellers. The bill gives the local authorities power to appoint a local health officer with full powers over housing conditions. Owners of property who allow four or five acres to interfere with the development of from 500 to 1,000 acres, will have notice served on them of compulsory sale.

Therapeutics

[It is the purpose of this department to outline an up-to-date management of disease, to suggest scientific treatment for diseased conditions, and to present prescriptions that are simple, useful and palatable. Prescriptions are written in both the metric and apothecaries' systems, but the amounts of the ingredients are NOT exact translations of one system into the other, but quantities convenient for pharmacist and physician. It should be understood that solids are weighed in grams or fractions of grams, while liquids are measured in cubic centimeters; that a teaspoon holds five cubic centimeters, i. e., more than a fluid dram, hence a 100 cubic centimeter preparation will contain twenty doses.]

Rheum.

Rhubarb is officially the dried rhizome of a plant growing in China or Thibet. The rhubarb cultivated in this country does not seem to possess cathartic qualities. The root or powdered substance has a characteristic aromatic odor, and a bitter, astringent taste, and its cathartic principles may be extracted by water and alcohol. Rhubarb contains, according to Culbreth, about 5 per cent. of chrysophanic acid, emodin, which is the active principle of several vegetable cathartics, two other principles called rhein and rhabarberon, a glucosid, a tannic acid called rheotannic acid, resins, several coloring principles, and a varying quantity of rosette-shaped crystals of oxalate of calcium.

If taken into the mouth, although it is somewhat astringent, its bitter taste increases the flow of the saliva, and in small amounts, increases the appetite and improves digestion, acting as a stomachic. In larger doses it causes several loose movements of the bowels, probably due to irritation of the mucous membrane of the intestine, which directly or reflexly through irritation of the nerves increases peristalsis. This increased peristalsis causes the food to pass more rapidly through the intestine, and this carries with it a larger amount of bile than usual, and, therefore, the feces are soft and contain an increased quantity of bile. Rhubarb increases the secretion of the intestinal glands, and probably also of the glands of digestion, and this may also be a cause of the increased intestinal activity. It is a slow-acting drug, and may cause movement of the bowels anywhere from six to twelve hours after its ingestion, depending on the size of the dose, the preparation taken, and the amount of food in the stomach and intestines. If rhubarb is given alone (not combined with other drugs) it generally causes more or less griping. On account of the tannic acid which rhubarb contains, the catharsis from one dose is followed by sufficient astringent action in the intestines to cause future constipation. Hence, unless rhubarb is given to clean out the intestines when there is diarrhea, it is generally inadvisable to give it for constipation unless it is combined with some other laxative drug.

It is excreted with the feces; in the urine, which is slightly increased in amount; in the perspiration, and in the milk. The feces are yellowish-brown or dark brown in color, and the urine of patients taking rhubarb may be of a reddish color. Such urine becomes purplish-red if an alkali is added to it, which proves that the dark color is not due to bile. The milk of nursing mothers may be yellowish in color, have a bitter taste, and a laxative action; therefore, nursing mothers should rarely be given rhubarb. Occasionally after the administration of rhubarb there is an eruption on the skin which, if urticarial in type, is doubtless due to the irritation of the intestinal mucous membrane, but if macular or vesicular, as has at times been noted, is probably due to the irritation it causes during its excretion by the sweat glands.

The ability of rhubarb to cause catharsis and then stop its action and not continue to cause a diarrhea renders it useful to unload the intestines in gastrointestinal disturbances in children. In conditions of indigestion, with sluggishness of the bowels, loss of appetite and general debility, rhubarb is, perhaps, the best drug to use, as it is a bitter tonic, a stimulant to digestion, and a laxative to the bowels, with a general toning up of the intestines. If castor oil is deemed inadvisable, and the prostrating effect of a dose of calomel is not desirable, in the beginning of the treatment of diarrhea, especially in children, rhubarb makes an efficient cathartic. This drug is also often given in small doses three times a day, in various combinations, to improve digestion and to stimulate the intestines; for this purpose it is often combined with bicarbonate of sodium. As a laxative in the treatment of constipation it is much used, but perhaps best, as previously stated, in combination with other laxative drugs. When there is intestinal indigestion, with too frequent movements of the bowels, with a tendency to a loose movement directly after a meal, small doses of rhubarb, perhaps combined with ipecac and sodium bicarbonate, are effective in correcting the condition. If there is a condition of plethora, or if depletion is desired, or free watery movements, rhubarb is not the cathartic to use.

The rhubarb root is furnished in powdered form, and the cathartic dose is 1 gram, or 15 grains.

The official preparations are:

EXTRACTUM RHEI. Dose, 0.25 gram, or 4 grains.

FLUIDEXTRACTUM RHEI. Dose, 1 c.c., or 15 minims.

MISTURA RHEI ET SODÆ. This rhubarb and soda mixture contains 1.5 per cent of the fluidextract of rhubarb, 3.5 per cent. of sodium bicarbonate, 0.3 per cent. of fluidextract of ipecac, 35 per cent. of glycerin, and 3.5 per cent. of spirits of peppermint. The dose is 10 c.c., or 2 fluidrams. This is a valuable antacid, stomachic, and mildly laxative preparation.

PILULÆ RHEI COMPOSITÆ (compound rhubarb pills). Each pill contains 2 grains of powdered rhubarb, 1½ grains of aloes, 1 grain of myrrh, and 1/12 grain of oil of peppermint. The dose is one or two pills. This pill makes a good treatment for chronic constipation.

PULVIS RHEI COMPOSITUS (Gregory's powder). This contains 25 per cent. of powdered rhubarb, 65 per cent. of magnesium oxid, and 10 per cent. of ginger. The dose is 2 grams, or 30 grains.

SYRUPUS RHEI. This contains 10 per cent. of the fluidextract of rhubarb, 0.4 per cent. of the spirit of cinnamon, and 1 per cent. of potassium carbonate. The dose is 10 c.c., or 2 fluidrams.

SYRUPUS RHEI AROMATICUS. This contains 15 per cent. of aromatic tincture of rhubarb and 1 per cent. of potassium carbonate. The dose is 10 c.c., or 2 fluidrams.

TINCTURA RHEI. This contains, besides 20 per cent. of rhubarb, 4 per cent. of cardamom and 10 per cent. of glycerin. The dose is 5 c.c., or 1 fluidram.

TINCTURA RHEI AROMATICA. This contains, besides 20 per cent. of rhubarb, 4 per cent. of cinnamon, 4 per cent. of cloves, 2 per cent. of nutmeg, and 10 per cent. of glycerin. The dose is 2 c.c., or 30 minims.

The National Formulary recognizes the following:

ELIXIR RHEI.

ELIXIR RHEI ET MAGNESII ACETATIS.

MISTURA RHEI COMPOSITA.

SYRUPUS RHEI ET POTASSII COMPOSITUS.

TINCTURA RHEI AQUOSA.

TINCTURA RHEI ET GENTIANÆ.

TINCTURA RHEI VINOSA.

The dose of any one of these elegant preparations is 5 c.c., or 1 fluidram, three times a day, after meals, or in larger dose, once a day, for laxative purposes.

PULVIS RHEI ET MAGNESII ANISATUS. This powder is carminative and laxative, dose for an infant, 0.30 gram, 5 grains.

Syphilitic Mucous Patches in the Throat.

Dr. J. Philip Kanoky of Kansas City, Mo., recommends (by a private letter) the following treatment of the above condition, as the most successful that he has yet found:

He first mops the affected surfaces dry with cotton swabs and then thoroughly paints the plaques with the official tincture of iodin. Immediately afterward he applies, by means of a swab, a 2 or 3 per cent. solution of bichlorid of mercury in water. The patient is cautioned against swallowing his saliva at this time, and in about five minutes he should rinse out his mouth and throat with water. Kanoky finds that two or three such applications are generally sufficient to heal the lesions. He believes that this treatment is "more effective and reliable than applications with silver, methylene blue, chromic acid, lactic acid, and acid nitrate of mercury."

Falling of the Hair in Women.

The *New York Med. Jour.*, Jan. 4, 1908, quotes from an article by Dr. R. Sabouraud (*Gazette de Gynécologie*, December, 1907), on this subject.

This writer declares that a woman's general health has nothing whatever to do with her loss of hair, except when such loss follows an acute febrile disease. The trouble is due to an abnormal amount of oily secretion of the glands of the scalp, except when there is a specific cause. In women the loss of hair begins at the forehead and temples, and the first symptoms of this trouble usually start, according to Sabouraud, between the ages of 18 and 22. At first dry pellicles form on the scalp, which at times may be difficult to remove, and later these are followed by a yellowish, greasy accumulation on the skin, and then the hair begins to fall. For some time this loss of hair occurs mostly in the summer-time when the oily secretion is greater than in winter.

Sabouraud says that the prime remedy to prevent this loss of hair is the frequent removal of the greasy accumulation by the vigorous use of soap, and the soap used should not contain enough potash to be irritating. It is not necessary to soap the whole length of the hair, but only about five inches from the roots. "After dry friction of the scalp, the hair should be separated into plaits and the roots of each plait in succession, and particularly the portion of scalp concerned, should be rubbed vigorously with a tooth brush wet with the soap and water." The solid cake of soap should not be applied to the hair, as it will leave undesirable particles of soap on the scalp. After the rubbing is completed "the hair and scalp should be rinsed with warm water and dried with a soft towel, with the aid of gentle heat, if necessary." No oil should be applied to the scalp. The author does not say how often this shampoo should be given.

He advises against the use of cantharides, but the substances which he thinks stimulate the growth of the hair are pilocarpin, quinin, caffein and camphor, and he suggests the following formula:

℞.	c.c.		
Pilocarpinæ hydrochloridi	20		gr. iii
Aquæ q. s. ad solutionem			
Spiritus lavandulæ	20	or	
Ætheris	20		ää, fl℥v
Aquæ ammoniæ	2		fl℥ss
Alcoholis	ad 250		ad fl℥viii

M. et Sig.: Rub into the scalp as directed.

Spray to Disinfect Sick-room (Neff.)

℞.	gm. or c.c.		
Guaiacolis			
Eucalyptolis	10		ää, fl℥ii
Mentholis	5	or	℥i
Thymolis	2		℥ss
Olei gaultheriæ	30		fl℥vii
Olei menthæ piperitæ.....	ad 75		ad fl℥ii

M. et Sig.: Use in an atomizer.

For Sunburn (Hare).

℞.	gm. or c.c.		
Plumbi carbonatis	4		℥i
Amyli	4	or	℥i
Olei olivæ	10		fl℥ii
Unguenti aquæ rosæ.....	30		℥i

M. et Sig.: Use externally.

Pharmacology

THE BROADER AIMS OF THE COUNCIL ON PHARMACY AND CHEMISTRY.

TORALD SOLLMANN, M.D.
Members of the Council, Professor of Pharmacology and Materia Medica at the Medical Department of Western Reserve University.
CLEVELAND, OHIO.

(*Continued from page 1810.*)

XI. STOOL PIGEONS.

The reputable physician who will defend the practice of indiscriminate self-medication on the part of the public must be a *rara avis* indeed. Yet in prescribing many of the so-called "ethical proprietaries" he is furthering the cause of the very evil he deprecates. This point was so clearly brought out in the paper by Dr. Simmons[1] that I shall only take it up because some of the readers may have overlooked the paper. There is a quotation in the article which is so enlightening that the gist of it, at least, should be remembered by every physician:

THE PHYSICIAN AS A COMMERCIAL ASSET.

"Let me quote a paragraph that appeared in *Printers' Ink*, an advertising journal, some two or three years ago. The words are those of a 'patent medicine' man and, of course, were not directed to physicians.

"'But the "patent medicine" of the future is the one that will be advertised only to doctors. Some of the most profitable remedies of the present time are of this class. They are called proprietary remedies. The general public never hears of them through the daily press. All their publicity is secured through the medical press, by means of the manufacturer's literature, sometimes gotten out in the shape of a medical journal, and through samples to doctors. For one physician capable of prescribing the precise medicinal agents needed by each individual patient there are at least five who prescribe these proprietaries. They are the chief standby of the country practitioner. . . . Three-fourths of all the prescriptions received are for these proprietary remedies, and the pharmacist simply opens the package and writes a label, "A teaspoonful three times a day before meals." . . . The original bottle is given to the patient. He sees that the remedy does him good, and when he feels a trifle run down again he goes to the drug store and buys another bottle, not troubling the doctor. He meets a friend on the street who is not looking well. "I know exactly how you feel," he says. "Now, just go and buy a bottle of ———. Best thing in the world. My doctor prescribed it for me, so it isn't a 'patent medicine.'" In this way the name of the remedies advertised only to physicians get abroad to the general public. . . . The proprietary medicine of the future, though, will be advertised through these channels. The medical papers will reap the harvest, and the physician himself, always so loud in the denunciation of "patent medicines," will be the most important medium of advertising at the command of the proprietary manufacturer. In fact, he is that to-day.'

"Have you ever seen an arraignment of this evil by its enemies which equals this cynical statement of its friends?"

Printers' Ink evidently goes on the principle that "a word to the wise is sufficient," and assumes that the proprietors are "wise." It is also apparent that it does not hold a very high opinion of the perspicacity of our profession. From its standpoint it is doubtless right, but we may console our self-respect with the reflection that the general practitioner does not set himself up as a specialist in ferreting out the wiles of the "patent medicine" man.

It is scarcely necessary to detail the various steps by which the "ethical proprietary"—with its therapeutic vade-mecum on the label and the circulars—carries its message to the self-medicating public. That it accomplishes this purpose is patent to all who have given the matter even passing thought—and no one appreciates is possibilities more than those self-ap-

1. THE JOURNAL, May 18, 1907, 1645.

pointed medical teachers of the public,—the proprietaary manufacturers.

THE "ORIGINAL PACKACE."

When the physician has prescribed an "original package," the patient greedily swallows it all—remedy, name, label and "literature"—the last with rather more zest than the first. If any physician does not know just what this means, let him take the trouble to examine a package of almost any product which has *not* been approved by the Council. Many things will become clear to him; among others, the real reason why advertisers ask us to specify the "original package," under the pretext: "To avoid substitution." The chances are that the package will contain a compact but comprehensive description of all possible ailments, and how to cure them at relatively small expense, by this unique medicine. The family physician has prescribed it, endorsed its efficiency, and placed the pamphlet in his patient's hand—and the patient does the rest.

Should anyone wish to study a specific instance of this means of disseminating medical knowledge let him read the description of phenol sodique that appeared in THE JOURNAL[2] last year.

There is also a better class of manufacturers—or a wiser—who would scorn these coarse methods. Some conscientious druggist might have the good sense to remove the wrapper! So the manufacturer leaves out the objectionable pamphlet and relies solely on the label, and "the name blown in the bottle for our protection only!" Now it is really astonishing how much solid advertising can be condensed into the space of a small label. One can not use as many words, but one can say as much, and suggest more. Besides, the bottle with its label or the name blown in the bottle, stays about the house even longer than the circular in which it was wrapped.

A respectable manufacturer will scorn to resort to such tactics. Of course he would! Just write to the eminent and long established firm of Pecksniff, Ditto & Co., about this little incident of their labels, and they will tell you so. "The therapeutic information is not placed on the label for the benefit of the patient—by no means; Pecksniff, Ditto & Co. are creditably informed that all patients are blind; and those who are not blind have not learned to read; and those who can read don't read; and those who do read do not know what 'cough' means. So you see, my dear Doctor, we could not possibly have intended the label for the patient. On the contrary, the information is all for your benefit. You may have forgotten some of the conditions in which Curallina-Pecksniff is indicated, and so, now all you have to do is to look at the bottle either at the drug store or at your patient's house."

THE "CATCHY" TRADE NAME.

There is another class which shows a distinct advance in craftsmanship. The label is quite free from advertisements. In a dignified and attractive form it presents the names of the preparation and of its manufacturer, perhaps its composition and dose—and nothing else. Can there be an Ethiopian in this woodpile? There may be. Notice the names: Migrainin, diabetin, liquor sedans, probilin, nephritin, etc. Does these suggest anything? Again a storm of righteous indignation. "We have adopted these names for the convenience of physicians; they have no meaning to patients, etc." No, the poor dispensary patient, who can not afford to buy them, does not know what they mean. He must confine himself to the free dispensary or to Kohler's headache powders. But there are some private patients who have the advantages of average intelligence and a high-school education. It is somewhat difficult to see how the term "diabetin" is any more convenient than "levulose," if it is more "catchy."

2. Nov. 9, 1907, 1617.

And this brings me to the last exhibit of the gallery, the "catchy" name, the "coined" name—convenient, easily remembered—by whom, if you please? Are physicians so ignorant or so lazy that they can not understand, remember or use a name indicating the origin or composition or other properties of a drug, but only those which imply its uses, or which imply nothing? Do they not know that antipyrin is used in migraine, bile salts in obstructive jaundice, or that chloral is a hypnotic, unless these are dubbed migrainin, chologestin and somnos? I concede that names should be reasonably convenient, and that sulphonethylmethanum is not a very useful synonym for trional, but there is a golden mean in all things.

Finally, I ask the reader to turn back to the sub-title of this paper, do some thinking, and then act on his conclusions.

(To be continued.)

Correspondence

Parallelism in Anatomic Description.

CINCINNATI, May 23, 1908.

To the Editor:—In THE JOURNAL, May 16, page 1651, I note that you have called attention to the item in the *St. Louis Medical Review* of March last, which accuses me of plagiarizing the section on anatomy in my recent article on the hymen. The *Review* says that the entire section devoted to the anatomy is cribbed from a certain article which is mentioned. This is not true, as any one can see by comparing the articles. The *Review* proceeds to publish from the two articles a number of parallel sentences of more or less similarity. Some of these sentences are of the simplest anatomic facts which are found in any anatomy, especially the old German ones, as, for instance, Hyrtl, as to the position of the hymen, its minute anatomy, and the enumeration of the animals in which the hymen is found; matter which is copyrighted by no one, but is the general common property of the profession. The article which I am accused of pilfering was published in 1904 and mine in 1908. But this was my last article on the hymen. My first was published in 1884. My last was a revised edition of the former, both read before the Cincinnati Academy of Medicine. I have published a dozen articles on the hymen and, from my first to my last, I have not been able to change the anatomy very much. This is rather a fixed science and pretty generally known. Some of the selections paralleled in my paper occupy but half the space they do in the other. When I wrote my last paper I prepared a bibliography mentioning all the articles that I had consulted and intended publishing it. The paper became so long it was necessary to cut it out. If I quoted the other man without giving him credit it was entirely unintentional and was caused by the omission of my bibliography. E. S. MCKEE.

A Liquid Splint Formula—A Warning.

BENTON HARBOR, MICH., May 20, 1908.

To the Editor:—A suave individual has been calling on physicians in this vicinity trying to sell a "formula" for a liquid splint material to take the place of plaster-of-Paris. He claims that the "formula" cost $28,000 to perfect, and that he has paid $7,000 for it himself and is selling it to physicians for $10, on the understanding that the physicians will keep it a secret! From the size of his "roll" and the diamonds he wears he evidently finds many "suckers." Dr. Charles H. Gallagher of Slaterville Springs, New York, exposed this man long ago and published the "formula" he used at that time. The formula was as follows: Powdered starch, one ounce; isinglass or gelatin, one ounce; solution of potassium silicate, one quart; pulverized boric acid, one-half ounce. Mix the starch with the solution of silicate of potash by shaking from a pepper box and stirring constantly; reduce the gelatin to the consistency of mucilage with boiling water and mix with the first two (better soften the gelatin with cold water first). Then put in jug of double

the capacity and ferment at room temperature for three or four days; then add the boric acid, mix well and it is ready for use. If too thick after standing, thin it with boiling water; keep corked. Apply a silk stocking or a roller bandage and then apply a coat of this preparation with a brush and repeat until three or four layers have been applied or until the splint is thick enough. It may be cut after hardening and eyelets and laces put in. I hope that no member of the American Medical Association will be deceived by his game.

FRED R. BELKNAP, M.D.

Some Disadvantages of New Mexico in the Treatment of Consumption.

CARRIZOZO, NEW MEXICO, May 25, 1908.

To the Editor:—There is still much ignorance in the East concerning the true conditions in New Mexico. Only a small percentage of physicians who come west for their health have any true idea of the relative advantages of this climate in comparison with that of the East. Thousands of people are sent to New Mexico every year with no other instruction from their physicians than "go west," and with the assurance that the climate is a sure cure for tuberculosis.

It is true that we have only about twelve rainy days a year, that the sun shines all the time and that the temperature is seldom too cold or too hot. But there are many disadvantages to which attention should be called. During the past four months the wind has blown two-thirds of the time so hard that my wife has not been able to stay outdoors, and during the entire year the wind and dust have kept her much more closely housed than the rain did in Virginia. Often for two months at a time we do not have enough rain to dampen the ground. In 1903 it did not rain for nine months. The dust is as fine as meal and very irritating on account of its excessive alkalinity. Four days at a time I have seen the wind raise so much of this dust that the view was obstructed as completely as in a fierce snowstorm. There are a few towns high up in the mountains or in small ravines where there is more rain or where the wind is not so bad, but I have described the condition prevailing in 75 per cent. of New Mexican towns. No patients with laryngeal tuberculosis or atrophic rhinitis should be sent here on account of this irritating dust.

Only a small percentage of the towns of New Mexico have pure water, many being supplied by open ditches in which cows may be seen drinking, pigs wallowing and Mexicans washing or wading. The wells in this limestone country, where the water does not filter, but runs in underground caverns, are even more dangerous than the ditches. Especially is this true when cesspools are dug nearly as deep as the wells and receive all the house waste water as well as the excrements, as is the custom in all small towns. In this town of about 1,500 inhabitants we had 23 cases of typhoid fever last summer, due, I believe, to infected well water. If the well or ditch water does not contain pathogenic organisms it is apt to be very injurious to a delicate person on account of the excessive amount of mineral matter it contains. I have often treated severe cases of cystitis and diarrhea that yielded to treatment only after the patient was taken off the alkaline water.

Then one needs to be careful to send patients to a first-class sanatorium and not to a third-class hotel. Many of these so-called sanatoria are not under the direct supervision of a competent physician, they give only the poorest accommodation and are hotbeds of infection. Pure dry air is a great help in the cure of tuberculosis, but rest, good food and the direct supervision of a competent physician are more essential. The person who has to work for a living will be much better off in the East, where wages for easy jobs are to be had and living is cheaper. All the positions requiring light work are greatly overcrowded in the Southwest.

With regard to women patients, it is to be especially remembered that housekeeping is very much harder in New Mexico than in the East. A smaller percentage of women than men recover here if they have to work. It is almost impossible to get competent servants. The dust is so bad that a neat woman has to be cleaning all the time; the water is so hard that soap can not be used, and sometimes so scarce that only one or two buckets a day can be had. Poor fuel and a tired body will keep her from properly preparing her food, and unless she has a good income the food will be poor in quality and insufficient in quantity.

More attention should be given to the altitude best suited to the patient's condition. No person in the third stage or with heart complication should be sent to an altitude above 4,000 feet. In the summer a patient will suffer from heat in Phenix, while Santa Fé is apt to be too cold in the winter. In coming to New Mexico every one should bring both summer and winter clothing. At an altitude of 6,000 feet a delicate person will need an overcoat in midsummer. I believe that all large towns are dangerous places on account of the promiscuous spitting. Often persons with mild infection become worse from infection by a more virulent organism. There are many sanatoria scattered over the Southwest under competent men where a patient can be comparatively free from dust, have good nourishing food, pure water and ideal climate. Physicians should see to it that their patients are sent only to such places. If they are not willing to spend at least one month in a first-class sanatorium do not let them come west.

B. B. BAGBY, M.D.

Medical Economics

Legislative Work in New Jersey.

A communication recently received from Dr. L. M. Halsey, chairman of the Committee on Legislation of the Medical Society of New Jersey, gives an interesting summary of the work done by this committee during the past year. The county societies of New Jersey were requested, whenever possible, to nominate physicians for the legislature, with the result that two physicians were elected. Prominent leaders of both parties now recognize the need of medical men in the legislature and it is anticipated that in the future it will be less difficult to elect them.

Early in the last session an antivivisection bill was introduced. A campaign against this bill conducted by the committee, was reported in THE JOURNAL, March 21, p. 986. So effective was the opposition that the bill was not reported from the Committee. Early in March, the osteopaths introduced a bill almost identical with that of preceding years except that it gave them the same standing as physicians. A hearing was granted them on this bill without any notice being given to the physicians of the state. A large delegation called on the chairman of the committee and demanded an additional hearing which was finally granted and at which members from almost every county society in the state were present. Various substitutes and compromises were proposed, the final result being that no legislation on this subject was adopted.

A bill reorganizing the State Board of Health was passed by the legislature. On this board the governor appointed only a single physician, who takes the position of secretary. It remains to be seen what the results of this bill will be.

The medical practice act was amended so far as it applies to physicians resident of New Jersey who were in practice at the time the present law was passed, permitting them to come before the board for examination without regard to the requirements for preliminary training, as set forth in the present law.

Dr. Halsey reports that the committee found members of the legislature more willing to cooperate with the medical profession than ever before, and that Dr. McCormack's work in the state is beginning to bear fruit. Medical societies are earnestly taking up the tuberculosis problem, while the state exhibit is being sent all over the state. It is anticipated that a marked reduction in the death rate will follow these efforts.

New York Optometry Bill Now a Law.

Governor Hughes of New York has signed the optometry bill which now becomes chapter 460 of the laws of 1908. While

it is to be regretted that the general principles underlying restrictive medical legislation should have been violated by the enactment of such a law in New York, yet there is probably no state in which it can do less harm, since the licensing power in New York lies with the Board of Regents of the State University which also holds all examinations. Such regulation is entirely different from that instituted by a board of optometrists appointed by a governor for political reasons and responsible to no one. The most unfortunate factor in the New York situation is that the passage of this bill in the Empire State will be used as an argument for its adoption in other states which have not the safeguard of a board of regents. It is to be hoped that the state association of opticians, which so ably opposed the passage of this bill will be able in a short time to secure its repeal.

POSTGRADUATE COURSE FOR COUNTY SOCIETIES.

DR. JOHN H. BLACKBURN, DIRECTOR.
BOWLING GREEN, KENTUCKY.

[The Director will be glad to furnish further information and literature to any county society desiring to take up the course.]

Ninth Month.

THIRD WEEKLY MEETING.

Acute Gastroenteric Infection.

Etiology and Pathology.

Etiology: Season, age, surroundings, constitution, food. Bacteriology of dairy milk, bacteria found, toxins, possibility of direct contagion. Researches of Booker.

Pathology. Macroscopic Changes: Contents of stomach and bowels, change in mucous membrane, lymphoid tissue. Severe cases, cholera infantum, intestinal contents, mucous membrane and Peyer's patches.

Microscopic Changes: Immediate autopsy important. Changes in epithelium. Bacteria found, lymphoid tissue. Associated pathology of cholera infantum.

Symptomatology.

Simple Gastroenteric Infection.

Mild Cases: Onset gradual, fever, gastric disturbances, diarrhea, character of stools, general symptoms. Course and duration. Tendency to relapses. Terminations.

More Severe Cases: Sudden onset, restlessness, pain, fever, vomiting, stupor, prostration, diarrhea, flatus. Character and number of stools. Course and terminations of disease. Effect of age and constitution on prognosis.

Cholera Infantum.

Preceding intestinal disorder frequent. Sudden onset, prostration, increasing fever, vomiting and purging. Character of vomited matter, of stools. Loss of fluids, relaxed sphincter, loss of weight, course of temperature and pulse. Condition in fatal cases. Spurious hydrocephalus. In patients who recover.

Queries and Minor Notes

ANONYMOUS COMMUNICATIONS will not be noticed. Queries for this column must be accompanied by the writer's name and address, but the request of the writer not to publish name or address will be faithfully observed.

INTESTINAL PUTREFACTION.

CURTICE, OHIO, May 11, 1908.

To the Editor: Several of my patients are using tablets said to possess the power of arresting intestinal putrefaction, and to be composed of various lactic ferments. In every way they appear to be a fake; or, rather simply a duplicate of the ordinary digestive tablet, so-called, pancreatin, pepsin, etc. Please give an opinion as to their value. FRED L. INGRAHAM.

ANSWER: The result of much work on intestinal putrefaction shows that the action of foreign putrefactive organisms is held in check to a large extent or completely by the *Bacillus coli communis* which is a normal inhabitant of the intestine. The *B. coli communis*, however, may produce putrefaction if its natural pabulum, sugar, usually introduced in the form of milk sugar, is deficient or lacking. Hence it was long ago learned that a milk diet is a good dietetic remedy for intestinal putrefaction. It was further learned that the acid of sour milk, lactic acid, has a powerful influence in inhibiting the action of putrefactive bacteria. This discovery explained the good effects of buttermilk, sour milk, etc., in infant feeding and in the treatment of intestinal disorders. As ordinary milk often contains pathogenic bacteria or those capable of producing putrefaction, great care should be exercised to secure buttermilk from a pure source or else a patient in taking ordinary buttermilk may be adding a sufficient dose of putrefactive organisms to overcome any good effect from the acid present. In case a pure buttermilk can not be obtained it would be better to use an artificially prepared buttermilk and this can be made by adding to fresh or pasteurized milk a pure culture of lactic acid bacilli. These produce the acid desired and are carried with the buttermilk into the intestinal canal to continue the work of protecting the food against the action of the putrefactive bacteria. The amount of proteid food should be reduced at the same time. This practice is founded on well-established facts and has a wide range of applicability.

ECHINACEA AND ECHAFOLTA.

MORRISTOWN, IND., May 18, 1908.

To the Editor:—Please inform me as to the real merits of echinacea or echafolta, both names being used. I understand to designate the same drug. V. C. PATTEN.

ANSWER.—*Echinacea angustifolia* is one of a host of plant drugs for which no scientific investigation of their chemical composition or their pharmacologic effects has been recorded, but for which most extravagant virtues have been claimed. Certain eclectic practitioners have credited echinacea with the power to counteract septic infection and "to correct fluid depravation, bad blood, tendency to sepsis and malignancy." It is needless to say that these claims have received no confirmation from recognized authorities.

Echafolta is a proprietary preparation; it is said to represent the therapeutic qualities of echinacea, grain for grain. Its manufacturers say: "It is echinacea with the dirt removed."

USE OF MAGNESIUM PHOSPHATE.

STANLEY, WIS., May 20, 1908.

To the Editor:—For what purpose and how is magnesium phosphate used in medicine? F. W. STARR.

ANSWER.—Magnesium phosphate, $MgHPO_4+3H_2O$ has been used as a mild laxative in doses of 1 to 4 grams (15 to 60 grains) three times a day.

The Public Service

Army Changes.

Memorandum of changes of stations and duties of medical officers, U. S. Army, week ending May 30, 1908:

Chamberlain, W. P., captain Medical corps, granted an extension of 20 days to his leave of absence.

Raymond, T. U., major Medical corps, ordered to perform the duties of chief surgeon, Department of Colorado, during the absence on leave of Lieutenant Colonel L. A. LaGarde, Medical corps, in addition to duty as surgeon, Ft. Logan, Colo.

Church, J. R., captain Medical corps, granted leave of absence for one month, about June 1.

Grubbs, R. B., captain Medical corps, ordered at the expiration of his present leave of absence, to Fort McIntosh, Texas, for duty.

Powell, W. A., captain Medical corps, relieved from duty at Jefferson Barracks, Mo., in time to sail July 5 from San Francisco, Cal., for Philippine service.

Siler, J. F., captain Medical corps, relieved from duty at Fort Des Moines, Iowa, and ordered to Fort Slocum, N. Y., for duty.

Vose, W. E., captain Medical corps, when relieved from duty at Fort Slocum, N. Y., ordered to Fort Des Moines, Iowa, for duty.

Harvey, P. F., colonel Medical corps, and Munson, E. L., major Medical corps, detailed to represent the Medical Department of the Army, at meeting of American Medical Association, Chicago, Ill., June 2-5.

Russell, F. F., captain Medical corps, ordered to London, Eng., for a course of study in the British Army Medical School on treatment of typhoid fever.

These officers of the Medical corps are detailed as chief surgeons at the respective maneuver camps:

The chief surgeon, Department of California, at Atascadero Ranch, Cal.

The chief surgeon, Department of Colorado, at American Lake, Wash.

The chief surgeon, Department of East, at Pine Camp, Jefferson county, N. Y.

The chief surgeon, Department of Gulf, at Chickamauga Park, Ga.

The chief surgeon, Department of Lakes, at Fort Benjamin Harrison, Ind.

Lieutenant Colonel J. M. Banister, at Fort Riley, Kan.

Lieutenant Colonel A. H. Appel, at Fort D. A. Russell, Wyo.

The chief surgeon, Department of Texas, at Leon Springs, Texas, These officers of the Medical corps and contract surgeons are ordered to accompany troops from their respective posts to duty at the maneuver camp, Pine Camp, Jefferson County, N. Y., June 15 to July 15, 1908:

Kendall, W. P., major Medical corps, Fort Ethan Allen, Vt.
Weston, H. E., contract surgeon, Fort Ethan Allen, Vt.
Barney, F. M., contract surgeon, Fort Myer, Va.
Weed, F. W., captain Medical corps, Plattsburg Barracks, N. Y.
Card, D. P., contract surgeon, Fort Jay, N. Y.
Tyler, G. T., contract surgeon, Fort Porter, N. Y.
Pierson, R. H., captain Medical corps, Fort Niagara N. Y.
Peed, G. P., captain Medical corps, Fort Ontario, N. Y.

Wheat, J. M., contract surgeon, granted leave of absence for 12 days.

Casaday, G. H., dental surgeon, granted leave of absence for one month and fifteen days.

Anderson, E. A., contract surgeon, ordered, at the expiration of his present leave of absence from Fort Wingate, N. M., to Fort Sam Houston, Texas, for temporary duty with troops in the field.

Health Reports.

The following cases of smallpox, yellow fever, cholera and plague have been reported to the Surgeon-General, Public Health and Marine-Hospital Service, during the week ended May 29, 1908:

SMALLPOX—UNITED STATES.

California: Los Angeles, May 2-9, 7 cases; San Francisco, 6 cases.
District of Columbia: Washington, May 9-16, 8 cases.
Illinois: Chicago, May 9-16, 1 case; Danville, May 10-17, 1 case.
Indiana: Fort Wayne, May 9-16, 2 cases; Indianapolis, May 10-17, 3 cases; Lafayette, May 11-18, 2 cases.
Iowa: Cass county, to May 16, 12 cases; Ottumwa, May 9-16, 1 case.
Kansas: Kansas City, May 9-16, 4 cases; Topeka, May 9-16, 3 cases.
Kentucky: Covington, May 9-16, 2 cases.
Louisiana: Minden, to May 11, 19 cases; New Orleans, May 9-16, 7 cases.
Michigan: Grand Rapids, May 9-16, 1 case; Port Huron, May 2-16, 5 cases; Saginaw, May 9-16, 3 cases, 1 death.
Minnesota: Winona, May 2-9, 1 case.
Missouri: Kansas City, May 2-16, 18 cases.
Montana: Butte, May 5-12, 3 cases.
Nebraska: South Omaha, May 9-16, 1 case.
New York: New York, May 9-16, 1 case.
North Carolina: Charlotte, May 9-16, 1 case.
Ohio: Bowerston, May 25-April 23, 1 case; Cincinnati, May 8-15, 9 cases; Dayton, May 9-16, 1 case; Newark, May 2-9, 1 case; Sherrodsville, Feb. 21-May 18, 90 cases.
Tennessee: Knoxville, May 9-16, 1 case.
Texas: Galveston, May 8-15, 1 case.
Washington: Spokane, May 2-9, 7 cases.
West Virginia: Parkersburg, May 1-18, 3 cases.
Wisconsin: LaCrosse, May 9-16, 6 cases; Milwaukee, 2 cases.

SMALLPOX—FOREIGN.

Arabia: Aden, April 13-27, 3 deaths.
Brazil: Manaos, April 11-18, 1 case; Rio de Janeiro, April 12-19, 136 cases, 43 deaths.
Canada: Halifax, May 9-16, 3 cases; Montreal, Feb. 22-29, 1 case; Winnipeg, May 9-16, 1 case.
Cape Colony: Cape Town, April 4-11, 1 case.
China: Hongkong, March 28-April 11, 53 cases, 39 deaths.
France: Paris, April 24-May 2, 4 cases.
Germany: General, April 26-May 2, 22 cases.
Great Britain: London, April 18-25, 1 case, 1 death.
India: Bombay, April 14-21, 52 deaths; Calcutta, April 4-11, 24 deaths; Madras, April 11-17, 1 death; Rangoon, April 4-11, 1 death.
Italy: Catania, April 30-May 7, 1 death.
Japan: Kobe, April 4-11, 2 cases, 2 deaths; Osaka, April 11-18, 126 cases, 114 deaths; Yokahama, April 11-25, 4 cases.
Mexico: City of Mexico, March 21-April 4, 12 deaths.
Portugal: Lisbon, April 25-May 1, 7 cases.
Russia: Moscow, April 11-18, 39 cases, 10 deaths.
Spain: Denia, April 25-May 2, 4 cases; Valencia, 22 cases, 1 death; Vigo, 2 deaths.
Straits Settlements: Singapore, March 28-April 4, 2 deaths.
Venezuela: La Guaira, May 7, present.

YELLOW FEVER—FOREIGN.

Brazil: Manaos, April 11-18, 1 case, 1 death; Para, April 19-26, 3 cases, 3 deaths.
Mexico: Laguna, May 18, 1 death.

CHOLERA—FOREIGN.

French Indo-China: Cholen, March 28-April 12, 26 cases, 26 deaths.
India: Bombay, April 14-21, 3 deaths; Calcutta, April 4-11, 221 deaths; Madras, April 11-17, 3 deaths; Rangoon, April 4-11, 1 death.

PLAGUE—INSULAR.

Philippine Islands: Manila, April 4-11, 4 cases.

PLAGUE—FOREIGN.

Brazil: Rio de Janeiro, April 12-19, 1 death.
Chile: Antofagasta, April 11-18, 20 cases, 3 deaths; Arica, present; Iquique, 12 cases, 4 deaths.
China: Hongkong, March 28-April 11, 19 cases, 18 deaths.
India: General, April 4-11, 10,099 cases, 8,490 deaths; Bombay, April 14-21, 379 deaths; Calcutta, April 4-11, 142 deaths; Rangoon, 16 deaths.
Japan: Osaka, April 4-18, 5 cases, 4 deaths.
Peru: General, April 11-18, 87 cases, 30 deaths.
Venezuela: La Guaira, March 1-May 7, 80 deaths.

Marriages

CAPTAIN JOHN BRAIDEN HUGGINS, Medical Corps, U. S. Army, to Mrs. Rose Loretto Colladay of Washington, D. C., May 14.

WILLIAM P. KANER, M.D., of Solvay, N. Y., to Miss Margaret Edythe Ryder of Syracuse, N. Y., May 20.

CHARLES R. GARRAWAY, M.D., of Shipman, Miss., to Miss Mary Belle Ramey of Leitchfield, Ky., May 25.

FRANK BROWN HINES, M.D., of Chestertown, Md., to Miss Miriam Louise Jessop, at Baltimore, May 20.

GEORGE MASON ASTLEY, M.D., to CLARA MELVIA CASSELBERRY, M.D., both of Philadelphia, May 16.

THOMAS EVERETT GRAHAM, M.D., to Miss Julia Eunice Hacker, both of St. Louis, Mo., May 6.

NEWTON H. STEIN, M.D., Middleport, Pa., to Miss Anna E. Conrad of Port Carbon, Pa., recently.

JOHN B. THOMAS, M.D., of Midland, Texas, to Miss Read Hurt of Big Springs, Texas, May 28.

JOHN FLETCHER MASSEY, M.D., to Miss Cora May Schaeffer, both of Westminster, Md., June 3.

GEORGE HENRY STEPHENS, M.D., to Miss Bertha H. Lucas, both of Syracuse, N. Y., May 20.

WALTER LINSEY NILES, M.D., of New York City, to Miss Louise Vesin of Yonkers, N. Y., May 20.

WILLIAM KENNEY DUDLEY, M.D., to Miss Hattie Hill Mann, both of Paris, Ky., May 19.

WADE A. MARTIN, M.D., to Miss Mary Alice Little, both of Avondale, Ala., April 21.

THOMAS RAGAN, M.D., to Miss Martha Hunter, both of Ruston, La., May 24.

Deaths

Grosvenor R. Trowbridge, M.D. University of Buffalo (N. Y.) Medical Department, 1887; a member of the medical societies of the State of New York and County of Erie; the American Academy of Medicine; once president of the Lehigh Valley Railroad Surgeons' Association; senior surgeon at the Rochester General Hospital and later staff physician at the State Hospital for the Insane, Danville, Pa.; local surgeon for the Delaware, Lackawanna & Western and Lehigh Valley railroads; a member of the board of trustees of the Buffalo Children's Aid Society; died at his home in Buffalo, May 20, from heart disease following influenza, after an illness of several weeks, aged 44.

Raphael O. Marcour, M.D. Medical Department of the Tulane University of Louisiana, New Orleans, 1897; of New Orleans; assistant surgeon U. S. Navy from 1898 to 1904, and representative of the medical corps of the Navy at the third Pan-American Medical Congress in Havana in 1900; a member of the American Medical Association; president of the New Orleans College of Midwifery; died in the Cosmopolitan Hotel, New Orleans, May 17, from acute gastritis, aged 32.

William Lloyd Smith, M.D. Rush Medical College, Chicago, 1878; for 20 years surgeon, with rank of major, in the Illinois National Guard; division surgeon for all railroads entering Streator, Ill., and attending surgeon to the Chicago & Alton Railroad for 18 years; president of the local board of health, and twice deputy coroner of La Salle County; died in the Streator Hospital, May 22, from spinal disease due to an injury sustained in 1906, aged 54.

David H. Lando, M.D. University of Michigan, Department of Medicine and Surgery, Ann Arbor, 1897; a member of the American Medical Association; instructor in internal medicine in the University of Minnesota and attending physician to the St. Paul Free Dispensary; died in a hospital in Vienna, Austria, May 19, after an operation for gallstone disease, aged 32.

Edgar Dudley Lewis, M.D. University of Michigan, Department of Medicine and Surgery, Ann Arbor, 1878; a member of the Michigan State and Genesee County medical societies; for more than 10 years a member and president of the board of pension examining surgeons; died at his home in Otisville, May 16, from acute gastritis, after a short illness, aged 60.

Robert B. Struthers, M.D. McGill University, Montreal, 1883; local physician for the Canadian Pacific Railway, and coroner of Sudbury County, Ont.; for a number of years a member of

the public school board and town councilor; died at his home in Sudbury, May 14, from heart disease, after an illness of four hours, aged 49.

James Gorrell Phillips, M.D. Medical Department of Missouri, University of St. Louis (Missouri Medical College), 1855; formerly a member of the Linn County (Mo.) Medical Society; died in Oklahoma City, Okla., April 18, from malignant ulcers and hemorrhoids, after an illness of ten months, aged 81.

Frank W. Gerecke, M.D. Bellevue Hospital Medical College, New York City, 1892; a member of the medical societies of the State of New York and County of Orange; of Newburgh, N. Y.; died in the Metropolitan Hotel in that city, May 18, from pneumonia, after a short illness, aged 39.

Adoniram Judson Pettis, M.D. University of Michigan, Department of Medicine and Surgery, Ann Arbor, 1903; of West Branch, Mich.; a member of the American Medical Association; died in Harper Hospital, Detroit, May 18, from hip disease, after a long illness, aged 37.

Charles Carrington, M.D. College of Physicians and Surgeons in the City of New York, 1860; a member of the American Medical Association, and a lifelong resident of Farmington, Conn.; died at his home in that city, May 20, after an illness of about a year, aged 68.

Thomas K. Keller, M.D. Medical College of the State of South Carolina, Charleston, 1860; surgeon in the Confederate service during the Civil War; died at his home near Creston, S. C., January 10, from pneumonia, after an illness of one week, aged 71.

Albert Joseph Back, M.D. Keokuk (Iowa) Medical College, 1898; a member of the Ohio State and Williams County medical societies; died at his home in Montpelier, Ohio, May 18, from fatty degeneration of the heart, after an illness of one hour, aged 46.

Martha Rose Stillman, M.D. Woman's Medical College of the New York Infirmary for Women and Children, New York City, 1896; of Plainfield, N. J.; died in the home of her mother in New London, Conn., May 20, after an illness of two months, aged 38.

Kinji Ugai, M. D. University and Bellevue Hospital Medical College, New York City, 1899; a member of the American Medical Association, and one of the most prominent Japanese of Sacramento, died in the California Hospital in that city, May 20.

E. A. G. Saleman, M.D. University of Leipsic, Germany, 1897; formerly of Buffalo, N. Y.; died May 18, in the North Hudson Hospital, Union Hill, N. J., from the effect of morphin and strangulation with suicidal intent, aged 39.

Georgiana Fulton, M.D. Cleveland (Ohio) University of Medicine and Surgery, 1890; of Steubenville, Ohio; died in a sanitarium in Columbus, May 17, from nervous collapse, after an illness of several months, aged 44.

William L. Liscomb, M.D. Medical Department of the Tulane University of Louisiana, New Orleans, 1850; a pioneer citizen of Columbus, Miss.; died at his home in that place, May 22, from senile debility, aged 88.

Benjamin Franklin Pearson, M.D. Medical Faculty of Queen's University, Kingston, Ont., 1867; of Queensville, Ont.; died at the home of his daughter in Toronto, May 17, after an illness of one year, aged 68.

William A. Cravens, M.D. Barnes Medical College, St. Louis, 1897; a member of the Missouri State Medical Association and Newton County Medical Society; died suddenly at his home in Granby, May 18.

Daniel H. Johnson, M.D. College of Physicians and Surgeons in the City of New York, 1897; of Parkersburg, W. Va.; died at the home of his parents in that city, May 16, after an illness of several months.

Ernest Walsworth Bennett, M.D. University of Vermont, College of Medicine, Burlington, 1897; of Worcester, Mass.; died in the Worcester City Hospital, May 19, from morphin poisoning, aged 40.

Gilbert A. Ferguson, M.D. Jefferson Medical College, Philadelphia, 1905; of Lost Creek, Pa.; died at the home of his parents in Philadelphia, May 21, after an illness of several months, aged 29.

Ellen Lyon Hancock, M.D. Hahnemann Medical College and Hospital of Chicago, 1892; of Chicago; died at her home in Wheaton, Ill., May 24, from cancer, after an illness of two years, aged 38.

Oliver Jarvis Beach, M.D. Jefferson Medical College, Philadelphia, 1900; of Bristol and Granby, Conn.; died at the home of his parents in Granby, May 15, after an illness of several weeks, aged 35.

Daniel Wolfe Gans, M.D. Western Reserve University Medical College, Cleveland, 1897; a member of the American Medical Association; died at his home in Massillon, Ohio, May 17, aged 35.

James Henry Hazard, M.D. Medical College of Ohio, Medical Department, University of Cincinnati, 1867; of Cincinnati; died at his home in Terrace Park, Ohio, May 24, aged 61.

Marion S. Gressett, M.D. Medical College of the State of South Carolina, Charleston, 1869; a Confederate veteran; died at his home in Grantsville, S. C., May 19, aged 70.

Stanley Gatch, M.D. University of Kansas School of Medicine, Kansas City and Lawrence, 1905; of Coyle, Okla.; died at his home in Tucson, Arizona, May 3, aged 25.

J. H. Watkins, M.D. University of Nashville (Tenn.) Medical Department, 1858; died at his home in Goodes, near Palmetto, Ga., May 21, aged 71.

Richard Ritter Bomar, M.D. Southern University Medical Department, Greensboro, Ala., 1885; died at his home near Center, Ala., May 14.

Paul Emile Prevost (Examination, Quebec), of Montreal; died in Ottawa, Ont., May 19, after an illness of two weeks, aged 44.

Deaths Abroad.

O. Langendorff, M.D., professor of physiology and director of the Physiologic Institute at Rostock, died May 10, aged 55. He made important contributions to physiology by his studies of the isolated, still living heart of cats and other animals, having constructed an apparatus which simulated the natural circulation for the heart and allowed its survival for hours after the apparent death of the animal.

A. Riche, M.D., professor of analytic chemistry at the University of Paris, died April 26, aged 79. He was president of the Academy of Medicine in 1902, and always took a prominent part in matters affecting the public health, pure foods and industrial hygiene.

Charles James Cullingworth, M.D., D.C.L., LL.D., F.R.C.P., consulting obstetric physician to St. Thomas' Hospital; formerly professor of obstetric medicine and gynecology, Victoria University, Manchester, died of angina pectoris, May 11, aged 67.

Francis Fowke, M.D., from 1871 to 1902 general secretary of the British Medical Association; died at Torquay, May 19, from malignant disease of the esophagus, aged 68.

Book Notices

DISEASES OF CHILDREN. Edited by M. Pfaundler, Director of Children's Clinic at the University of Munich, and A. Schlossmann, Director of Children's Clinic at the Medical Academy in Dusseldorf, with an Introduction by L. Emmett Holt, M.D., New York, Professor of Pediatrics, Columbia University. In Four Volumes, Illustrated. Cloth. Price, $20.00 per set. Philadelphia and London; J. B. Lippincott Co.

This work published in four volumes containing about 2,000 pages presents the experience of a number of German clinicians, most of them specialists on the subjects on which they write. The work is translated by American authors, specially interested in pediatrics. The method by which this work has been produced insures a treatise of value, both from the wide experience of the authors and the intrinsic importance of the subject and also from the fact that, being a foreign work, it presents the subject from a different point of view from that to which the American physician is accustomed. The first volume deals with general topics, while the succeeding ones are devoted to special diseases; general constitutional and infectious diseases occupy one volume, while the remaining two deal with the diseases of the various systems, digestive, circulatory, nervous, etc. Two hundred pages are are devoted to general symptomatology, individual symptoms being taken up and analyzed with reference to the diseases in which they may occur. This part of the work ought to form a very useful diagnostic aid. General prophylaxis gives a wide range of measures intended to secure the proper de-

velopment of the child as well as to avoid disease. Not only is the hygiene of infancy described, but the prevention of anomalies which show themselves more commonly as adult life is approached is given a due share of attention. It is gratifying to see attention called to the danger of the development of gastroptosis with the graphic evidence that this condition can be cured if proper measures are adopted in its incipiency. The regulation of school life and the delicate functions of the physician in respect to the moral and spiritual development of the child are briefly but appropriately considered. Under general therapeutics important details of the care of sick children, the use of physical remedies, the adaptation of drug administration to children, etc., are considered.

A chapter is devoted to milk. The work is thorough and includes the physical and chemical properties of milk, the method of production, chemical, microscopic and bacteriologic testing. More tests are given than the practicing physician will be likely to use or to understand, and it must be said that in some places the meaning is not clear. Thus on page 334, we read:

"Titrate 50 c.c. in a flask, adding 2 c.c. of a 2 per cent. alcoholic solution of phenolphthalein with one-fourth normal sodic hydrate solution (Soxhlet-Henkel), using at the same time the opposite test, with the same quantity of phenolphthalein, in a flask of the same shape, without water, and on a white bottom." Just what is meant by the "opposite test" is left to inference and may tax the imagination of more than one reader.

While the inconveniences and disadvantages of the composite text-book have not been altogether avoided, the specialist and the general practitioner who appreciate the immense importance of the subject of pediatrics, will find in these volumes a mine of information of which he will find frequent occasion to avail himself.

ARTERIAL HYPERTONUS, SCLEROSIS AND BLOOD PRESSURE. By William Russell, M.D., F.R.C.P., Edin., Physician to and Lecturer on Clinical Medicine in the Royal Infirmary, Edinburgh. Cloth. Pp. 194, with illustrations. Price, $2.50. Philadelphia: J. B. Lippincott Co., 1908.

The first chapter of this interesting and instructive book deals with the structure and movements of arteries and with blood pressure and its relation to contraction of vessels and power of the heart. The author's discussion of methods of measuring blood pressure or rather as he rightly contends vessel compressibility is excellent. He recognizes the following anatomical changes in arteries: Atheroma, obliterative endarteritis, calcareous infiltration and arteriosclerosis, limiting the last to generalized arterial thickening without the degeneration of atheroma. But his interest centers in the changes in the wall of arteries produced by contraction of them and called by him hypertonus. This condition he shows is quite as often manifest in arteries which are structurally diseased as in those that are normal. The hypertonus may be due to the influence of the nervous system but oftener to the condition of the blood, i. e., to toxic matter in it. The toxic substances of commonest occurrence, as our author thinks, are the products of fermentation in the gastro-intestinal tract. Therefore stress is laid upon errors in eating and digesting and eliminating waste. He believes that the arterial contraction is protective to prevent the escape of these toxins from the vessels. Moreover, he makes the generalization that hypertonus indicates the presence of deleterious substances in the blood. Hypertonus is by no means always generalized. The fact that it may be focal is particularly dwelt on in the chapter on contraction of cerebral arteries. Hypertonus is believed to be the first step toward the production of arteriosclerosis. Sclerosed vessels often become very sensitive to the causes of hypertonus and exhibit varying grades of hypertonus from time to time. If this full and interesting discussion of hypertonus and allied troubles is to be criticized at all it must be said that the chapters are of unequal value. Some of them contain clinical descriptions which are not well analyzed or fully blended with the substance of the book. One can not but feel that the various chapters have been written at considerable intervals and that therefore they do not possess the continuity of thought and argument which is desirable.

THE COMMON SENSE OF THE MILK QUESTION. By John Spargo. Cloth. Pp. 351. Illustrated. Price, $1.50. New York: The Macmillan Co., 1908.

This work is addressed to the intelligent laity and considers the question of milk from the standpoint of the infant mortality that depends to so large an extent on the use of impure milk as an infant food. The reasons for the modern increased interest in the welfare of the child the author finds largely in the economic importance of children in consequence of the diminishing birth rate. The essential argument of society is seen to be that since an insufficient number of children are born it is necessary to take better care of those we have, and in this idea is seen an interesting explanation of the fact that in France, where the birth rate is lowest, there is the greatest solicitude and the most advanced methods of caring for the children. The author finds the reason for the lessened birth rate not in the voluntary devotion to fashion, but in an actual lessening of fertility in consequence of the development of the intellectual nature. A similar biologic law he thinks brings about the inability of the mothers to nourish their offspring from their own breasts. The reasons for the selection of the cow for the supply of milk for infant feeding he regards as purely economic and suggests the desirability of a wider diffusion of knowledge as to the value of the goat for this purpose. He seems to be unaware of the dangers from Malta fever to which the goat may render a community liable. The insanitary conditions under which much of the milk is produced and the disastrous effect of impure milk on infant life are vividly portrayed. He discusses the remedies proposed, giving a detailed account of the *"gouttes de lait,"* and other foreign attempts to solve the problem as well as the American methods of milk commissions, etc. The value of inspection is shown, but Spargo thinks that it is a matter which should be placed under national supervision since the milk supply of a large city is often drawn from outside the state and an unfair burden is placed on the city by requiring it to inspect dairies in several states. The author endeavors to reconcile the proposed measures of the "radicals" and the "opportunists" and believes that while the effort should be made to obtain clean milk for all consumers, the day is still far distant when such a general supply will satisfy the requirements of safety for infants and that while endeavoring to reach the ideal it is necessary for the present to pasteurize the milk which is to be given to the children.

The book shows a remarkably clear grasp of the milk problem and the presentation is such as to appeal especially to the lay reader. It is, however, well worth the perusal of the physician who aside from the professional interest has the same interest in the matter as a sociologic problem that the layman has.

THE MOTHER'S YEAR-BOOK. By Marion Foster Washburne, Author of "Family Secrets," etc. Pp. 259. Cloth. Price, $1.25. New York: The MacMillan Co., 1908.

This is in no sense a medical work, but one that deals with the daily life of the child from its birth till the end of the first year. The author has evidently studied children closely and her remarks are on the whole practical. She wisely emphasizes the importance of breast feeding and lays stress on the duty of the mother to nurse her child, describing the difference between the healthy, happy, breast-fed infant and the pale, weak, bottle-fed child with its tendency to intestinal disturbances. The child's first attempts to express pleasure or pain are described and the mental and physical development are discussed at length. The book is one which could be read by all young mothers with profit; it will aid them in studying the development of the child and in understanding it.

SCHOOL REPORTS AND SCHOOL EFFICIENCY. By David S. Snedden, Ph.D., and William H. Allen, Ph.D., for the New York Committee on Physical Welfare of School Children. Cloth. Pp. 183. Price, $1.50. New York: The MacMillan Company, 1908.

This volume presents the need of uniformity in school reports, gives the efforts of the National Educational Association to secure such uniformity and gives examples of tables and other forms of presenting school facts, used in typical city school reports. This book will interest those concerned in the medical inspection of schools and in the efforts to secure proper physical surroundings of children while at school.

PROCEEDINGS OF THE CHICAGO SESSION.

MINUTES OF THE FIFTY-NINTH ANNUAL SESSION OF THE AMERICAN MEDICAL ASSOCIATION, HELD AT CHICAGO, JUNE 2-5, 1908.

House of Delegates

First Meeting—Monday Morning, June 1

The House of Delegates convened in the Board of Officers' Rooms, First Regiment Armory, and was called to order at 10:20 a. m., Monday, June 1, by the President, Dr. Joseph D. Bryant, New York.

Dr. H. Bert Ellis, California, presented the preliminary report of the Committee on Credentials as chairman, giving the names of delegates who had thus far presented their credentials, and stated that the committee would make a further report later.

Dr. Alexander R. Craig, Pennsylvania, moved that the minutes of the previous annual session be adopted as printed, which motion was duly seconded by Dr. C. E. Cantrell, Texas, and carried.

President Bryant then delivered his address.

President's Address.

Gentlemen:—The period of my official connection with the high station to which I was chosen is drawing to a close, and in a few hours what yet remains will become a part of that already passed, when the whole will have been registered in the annals of the affairs of the organization, there to remain as evidence in the estimate of my official deserts. For the expression of confidence and respect so generously bestowed I again bow in most humble acknowledgment.

The practical wisdom of those who conceived and gave birth to the system of government of the Association did not seriously contemplate that the transient advent of a President need much disturb the ordinary tide of its concerns. Whether or not this conception of presidential utility be wise or otherwise can not yet be considered as settled. And, whether it be wise or not, can better be determined by a broad spirit of statesmanship than by one of restricted policy. It might safely be regarded as possible that a transient judicious executive would exercise a wholesome influence in the control of affairs. Be this as it may, the comparative differences of the governing affairs of the Association and those of the government on which they are fashioned, become less apparent as one reaches the sources of authority, and they practically disappear at the port of the official head of this organization.

I am not finding fault because of this anomaly, but am simply pointing out what is recognized and gravely regarded by many thoughtful and devoted men, whose views are not limited by the horizon of the present time. In my judgment, the well-being of the Association would be more securely fixed and correspondingly enhanced by requiring that the President cooperate with his colleagues in official labors, the same as is done in other corporate bodies of established significance.

The problem which for long has periodically perplexed our federal government and its gracious and sympathetic people, viz., "What to do with the former presidents" now appears to be knocking at the door of expediency of our organization, and inquiring "What to do with the former presidents" of its own? In this connection, I would say that the degree of wisdom which our former presidents have acquired because of established official contact with their colleagues in the control of affairs, can not be seriously regarded as profoundly fitting them for much special consideration. With this important feature thus qualified, I am inclined to caution you to think carefully and act slowly in a matter which, while disturbing the equilibrium of constituted state representation, seems not to contribute a commensurate gain.

I am aware it is often thought wise or expedient by some persons that the coordinating requirements of an organization be not too explicitly stated in its constitution and by-laws, but I am none the less of the opinion that these of ours could be improved in forms of expression and in scope and requirement, by comparatively brief efforts of judicious character.

The fact of whether or not the provision relating to the calling of meetings is sufficiently amplified for the purposes of duly authorized action, might well be determined.

The clause of the Constitution providing that "no member of the House of Delegates shall be eligible to the office of President or Vice-President" is a wise and healthy measure, for men thus disposed should not be active constituents of a legislative body vested with the power of conferring official station, nor should one be thus connected, whose remuneration for special services can come before the legislative body for consideration, for plainly obvious reasons.

The selection of the members constituting the special and reference committees of the session have been made, as far as practicable, in accordance with the numerical representation in the Association of the respective parts of the country, and, as estimated for the purpose of selection by Mr. Hoffman of Newark, a distinguished statistician and actuary. Therefore, if any disappointment should happen because of less representation than before, the difference is due more to the verdict of impartial figures than to the exercise of individual desire.

I have thus far on all occasions taken pleasure in commending the purpose and the work of the Council on Pharmacy and Chemistry. I again wish to renew this approval, and also to express the self-evident fact that, if medical therapy is to be of reliable worth, then, indeed, the constructive purity of its agents and their physiologic action must be scrupulously guarded.

I have been not a little disturbed by the assertions of persons who are engaged in the enterprises of pharmacy, relating to certain wrongs which they claim to have sustained because of unfair and ungentlemanly treatment at the hands of responsible officials of the Association. In one instance it was asserted that oppressive and illegal hardship had been inflicted, which resulted in mental distress and in pecuniary loss. In this instance I expressed the belief to the complainant that he was in error, and predicted that the courts would so determine, were a test made, and advised that it be made at once. The complainant declined to accept this advice, saying that were his contentions well founded, and even sustained by the courts, still his business would be destroyed by retaliatory cooperative action of the members of the American Medical Association! Was ever an upright and independent body of men more misjudged than this? Could one impelled by childish imaginings be more mistaken than he? It were better far for the honor of the medical profession that this Association resolve into thin air or into the sediment of a stagnant pool than thus attempt to smother established justice with the fumes of revengeful disorder. Already too much of this kind of spirit is abroad in the land, for the comfort and security of law-abiding people. And we, the members of a learned profession, should be ever actuated by the spirit of citizenship, which promotes good order in all things and invites the infliction of the penalties that foster obedience.

Bitter complaints have come to my notice which appear to embrace the practical question of whether or not those who are opposed to the policy of government which stands for the securing of trustworthy medicinal agents, are entitled to the same consideration as are those who approve of and support the purpose. And, as a corollary of the preceding, whether or not those who actively give, or passively lend support, to a policy impairing or making uncertain the curative virtues of medicinal measures, or lowering in other ways the station of scientific medicine, are entitled for long to patient considera-

tion at the hands of those who, in this regard, are striving for the best of things? I do not understand how it is that this question can be answered in the affirmative. However, the unusual and novel questions which readily come to the front in these circumstances, should be kindly though firmly met, and with a spirit which, though striving for higher thought and action, soothes instead of needlessly provoking opposition.

I am convinced of the need, and commend to your approval the importance of the work being done by Dr. McCormack in elevating the tone and the standard of the medical profession. A service of this kind is in order, and will enhance the station of medicine accordingly as the facts are wisely selected and judiciously expressed.

Some of the discreditable vagaries of thought and action that are noted in business relations are threatening to enter much into professional relations as well. In fact, tangible evidence is not lacking that practices of unethical reciprocal nature too frequently exist for the credit and honor of our calling. I regard it of special importance that students in medicine should have their ideas of professional conduct carefully molded aright, while yet in the plastic state of development. The principles of moral philosophy as related to medicine are not apt to be decidedly catching in the instances of physicians whose thoughts and habits of action are already quite well established. And also, the active and passive obstruction to coordinating within decent bounds certain questionable and convenient products of pharmaceutical skill, are an earnest of the need for a proper bending of those who may be regarded as the "twigs" of our profession, so that as "trees" they later may be rightfully "inclined."

It would seem to me as wise that a standing committee on principles of moral philosophy as applied to medicine be constituted, with the view of elaborating still further ethical principles, and so far as practical establishing in this respect uniformity between the medical profession of this and other countries. Also, I would suggest that undergraduate and postgraduate general instruction in ethical medicine be a part of the requirements of institutions engaged in medical teaching. I would expect greater, earlier and more durable results, and without friction, from this plan, than can come from any quasi-insistent method of endeavor. The incident of the insistent master, the abundant trough and the unwilling horse well typifies the present situation in many instances. In any event, it would be well properly to develop the roots of our profession while busily trimming the branches.

I would signally fail in my duty at this time were I to omit telling you that plausible measures directed to the regulation of animal experimentation are abroad in the land, which are drawn so adroitly and presented so cleverly, as to conceal, on confiding inspection, special factors of grave possibilities. Consequently, medical men who are loyal to the spirit of scientific endeavor are thoughtlessly giving strength to the stealthy foes of scientific medicine. It should not be possible to thus easily introduce into the ranks of our calling a wedge, which, when driven home, would split our organization asunder on the policy of animal experimentation. Medical men should refuse to give assent to strange policies of a professional kind until after thoughtful and judicious consideration shall have determined the wisdom of the propositions. If organization in medicine stands for aught, it should stand for unity of purpose in all scientific matters relating to it. Since "forewarned is forearmed," each of you should keep in mind the possibility of besetting dangers, and in no instance fail to sound the alarm long in advance of parley or of impossible capitulation.

I would respectfully urge that the House of Delegates take decided and far-reaching action in this important matter.

Whether the constitution or the flag should take precedence in the outlying parts of our country need not concern this Association as much as how soon can the medical profession of these accessions properly become integral parts of the organization. It seems to me that this question should be answered at the earliest practical moment. The claim of the medical profession of Alaska for similar action is one of substantial moment, and may be of superior importance to those of recent birth and of less development. The moral effect on the tone of the profession of these communities, of the sympathy, approval and support of this Association, in the furtherance of proper methods of control of their affairs, would be encouraging to them and creditable to the organization. And no doubt the sooner the supporting hand is extended the easier and more complete will be their task.

In as brief manner as possible I have called your attention to certain things relating to matters of the organization, which, in my judgment, should be better adjusted in order to comport more nearly with the conduct of the affairs of organizations whose wisdom of government one can not gainsay. The question before the house is not how best to please a few, but how best to satisfy the many. Therefore, the policy of government should be broad and uniform, and in conformity with the judgment of the majority. Its conduct should be characterized by the inherent power of discriminating justice, patiently and temperately dispensed. The official servants of the organization should regard themselves as such, and not the masters of it. They should exercise discretion and patience, and consequently should be vigilant and gracious under all circumstances. And in this connection it should be remembered that our country is broad, and that its people are independent and honest; also that those of different parts of the country do not always think and judge alike in similar matters, and what is of special significance at this time is that the medical profession is an influential part of the people, and, therefore, of significant importance in its respective environments. I earnestly utter these words and without bias, because of the known recognized temptations to inconsistency of thought and action which the exercise of power so often begets. I would remind you that the wise exercise of power oftener requires greater skill and courage than does the achieving of power. And also that the absence of wisdom in control not infrequently destroys the highest governing conception of men.

Although it has been said "that those who think must govern those who toil," it should not be overlooked that, in a profession those who toil must also think, and because of thought, are competent to govern while yet they toil. That too much government is apt to be harmful is an accepted fact, and, therefore, that those who govern least may govern best, can not be gainsaid.

I would regard it as a misfortune were the duties of the House of Delegates of this Association to become so onerous and perplexing as to eliminate from its councils men whose ceaseless toil makes for higher station in medicine. Consequently, I regard it as very important that the duties of this body be abridged and simplified as much as possible, and that judicious expedition in the conduct of its affairs be promoted and that hindering cavil be abrogated. When it shall appear that the uncertain products of legislative desire are of more concern than those of positive scientific endeavor, then the ennobling functions of the Association will have been mortally hurt.

That "death has many doors to let life out" is the history of all bodies of men. And, it is a matter of profound congratulation to us that, of the many doors in this organization but few, indeed, came ajar during the last year. Through one, however, out into the unknown has recently passed a conspicuous member of the Association and the profession. One whose indefatigable energy and ceaseless activity contributed enduring abundance to the honor and glory of our calling. In his profession, the paths which he hewed with consummate wisdom and patient care, often through obstacles akin to those of pious endeavor, still lead onward, and upward, and toward the terrestrial Mecca of cure and comfort of the human race. In other undertakings his footsteps were firm, consecutive and direct, and his successes are indelibly impressed on the fields of his toil. And, as an example for emulation in all that relates to breadth of effort, and height of success in the paths to which he clung, the memory of the late Dr. Nicholas Senn should be revered and ever regarded as a precious heritage of our profession.

An unprecedented incident of unusual significance and full of beneficent possibilities happened, when, on March last, the President of the United States extended an invitation to the medical profession to take part in the conference on the conservation of natural resources. The President in this regard expressed himself as follows: "I wish to invite the cooperation of the American Medical Association in bringing this matter before the people; and it gives me added pleasure to invite you, as President of the Association, to take part in the conference." It should not be necessary to say that I was present and that, on behalf of the American Medical Association, I thanked the President profoundly for the invitation, and pledged to his support in the conservation, not only the members of the American Medical Association, but the entire profession of the land. I would urge that prompt, appropriate and decided action be taken by this body, thus showing appreciation of the invitation and determination to aid in every possible manner.

I would be negligent of a plain duty and the promptings of a keen sense of satisfaction, were I to omit on this occasion to express my appreciation of the uniform courtesy which has been shown me by the members of this body and

by the officers of the organization. The charm of official association is greatly enhanced by the unanimity of purpose and the attention to duty which characterize those invested with responsibility. In this connection it can be truly said that criticisms visited on the officers of the Association rarely include those of delay or indifference in the conduct of official business. And to have to do with the activity of an organization blessed with the chance of bringing the medical profession of this country into judicial unity, for the promotion of wise and beneficent purposes, is the distinction of a lifetime, and one which those who are thus favored should honor, as long as opportunity and effort can add to the glory and station of medicine.

Finally, the comforting optimism of my nature leads me to regard as certain the final success of all our contentions, which are based on the capacity to gladden, and to cure the afflicted of our kind.

On motion of Dr. Albert Vander Veer, New York, seconded by several delegates, a vote of thanks was extended to President Bryant for his clear, instructive and inspiring address.

Reference Committees Appointed.

The Secretary then read the following list of reference committees, appointed by the President:

COMMITTEE ON MEDICAL EDUCATION.

H. D. Arnold, Massachusetts, Chairman.
Frank Billings, Illinois. A. Vander Veer, New York.
W. M. L. Coplin, Pennsylvania. L. S. McMurtry, Kentucky.
(Members of the Council on Medical Education are members ex-officio of this committee.)

COMMITTEE ON AMENDMENT TO CONSTITUTION AND BY-LAWS.

George W. Guthrie, Pennsylvania, Chairman.
Charles E. Cantrell, Texas. C. H. Cook, Massachusetts.
G. L. Taneyhill, Maryland. G. L. Strader, Wyoming.

COMMITTEE ON SECTION AND SECTION WORK.

Leartus Connor, Michigan, Chairman.
S. W. Woodyard, Tennessee. Julius Bierwirth, New York.
Michael Hoke, Georgia. Charles McVea, Louisiana.

COMMITTEE ON RULES AND ORDER OF BUSINESS.

W. H. Sanders, Alabama, Chairman.
Victor H. Stickney, North Dakota. J. N. Jenne, Vermont.
J. F. Highsmith, North Carolina. Hugh F. Lorimer, Ohio.

COMMITTEE ON LEGISLATION AND POLITICAL ACTION.

C. S. Bacon, Illinois, Chairman.
J. N. Hall, Colorado. Colonel H. G. Beyer, U. S. Navy.
S. Bailey, Iowa. Major W. W. Ireland, U. S. Army.
(Committee on Medical Legislation ex-officio.)

COMMITTEE ON MISCELLANEOUS BUSINESS.

Stuart McGuire, Virginia, Chairman.
J. B. McGaughey, Minnesota. S. T. Turner, Texas.
H. H. McCarthy, Washington. J. H. Pierpont, Florida.

JUDICIAL COUNCIL.

C. E. Cantrell, Texas, Chairman.
Charles J. Kipp, New Jersey. George Dock, Michigan.
J. F. Percy, Illinois. H. L. Alkire, Kansas.

COMMITTEE ON REPORTS OF OFFICERS.

Wisner R. Townsend, New York, Chairman.
Donald Campbell, Montana. W. T. Sarles, Wisconsin.
W. T. Williamson, Oregon. Frank Paschal, Texas.

COMMITTEE ON HYGIENE AND PUBLIC HEALTH.

W. N. Wishard, Indiana, Chairman.
A. R. Craig, Pennsylvania. G. B. Young, U. S. Public Health
J. D. Griffith, Missouri. and Marine-Hospital Service.

COMMITTEE ON CREDENTIALS.

H. B. Ellis, California, Chairman.
Horace Bonner, Ohio. D. C. Brown, Connecticut.
C. M. Nicholson, Missouri. Adam Guthrie, Arkansas.

On motion of Dr. Alexander R. Craig, Pennsylvania, seconded by Dr. C. E. Cantrell, Texas, the President was authorized to fill vacancies on reference committees.

Report of the General Secretary.

On motion of Dr. Wisner R. Townsend, New York, the Report of the General Secretary was accepted as printed in THE JOURNAL, May 23, page 1731, and referred to the Reference Committee on Reports of Officers.

Report of Board of Trustees.

Dr. Philip Mills Jones, California, moved that the Report of the Board of Trustees be accepted as printed in THE JOURNAL, May 23, and that it be referred to the Reference Committee on Reports of Officers. This was seconded and carried.

Report of Council on Medical Education.

REPORT POSTPONED.

The report of the Council on Medical Education was called for and postponed until the afternoon session.

Report of Committee on Medical Legislation.

On motion of Dr. Wisner R. Townsend, New York, duly seconded, the report of the Committee on Medical Legislation was accepted as printed in THE JOURNAL, May 23, and referred to the Reference Committee on Legislation and Political Action.

Report of Board of Public Instruction.

On motion of Dr. Philip Mills Jones, California, the report of the Board of Public Instruction was accepted as printed in THE JOURNAL, May 23, and referred to the Reference Committee on Hygiene and Public Health.

New Business.

New business being in order, Dr. Philip Mills Jones, California, presented the following resolution:

Resolved, That the first, third and fourth sentences of the report of the Board of Trustees, page 42 of official pamphlet, under head "National Organizer," be stricken from the report.

The resolution was discussed by Drs. T. J. Happel and Lewis S. McMurtry, after which Dr. Alexander R. Craig moved to amend that the explanation given by Dr. Happel be referred with the resolution to the Reference Committee on Reports of Officers, which amendment was accepted. The motion for the adoption of the resolution was then carried.

The Secretary read a commmunication from Congressman H. R. Burton regretting his inability to attend the meeting.

Supplementary Report by Board of Trustees.

Dr. T. J. Happel, Tennessee, presented a supplementary report on behalf of the Board of Trustees, which was referred to the Reference Committee on Reports of Officers.

On motion, the House of Delegates then adjourned until 2 p. m.

Second Meeting—Monday Afternoon, June 1

The House of Delegates reconvened at 2:10 p. m. and was called to order by the First Vice-President, Dr. Edwin Walker, Indiana.

The minutes of the previous meeting were read and approved.

Dr. H. Bert Ellis, Chairman, presented a further report of the Committee on Credentials.

Report of Committee on Organization.

Dr. J. N. McCormack, Kentucky, read the report of the Committee on Organization, which was referred to the Reference Committee on Reports of Officers.

Having made the official request at Atlantic City to be relieved of the arduous duties of my position at this meeting of the Association, the year's work was carefully planned in an effort to make it more profitable than any which had preceded it, and a fitting culmination of a labor which appeared to have been as highly appreciated by my friends everywhere as it has been congenial to me.

Attaching first importance to county society work, recognized early as the foundation for everything in the organization, and yet by far the most difficult part to keep vitalized, the most pressing need was for the completion of the post-graduate course of study. Dr. Blackburn already had this well on the way and the weekly outline soon running in THE JOURNAL was received with such favor that arrangements were made for its introduction into a number of societies. It is the only tangible, coherent plan which has ever been proposed for maintaining the interest in county societies, and the needs and possibilities for it are so great that no pains or expense should be spared for continuing and extending it. The director will cover all of this in his report so fully that I will only bear testimony to the time, labor and fidelity he has given to the work, and say that the small appropriation has only about met the actual expense he has incurred in conducting it.

My active field work began with an address before the American Pharmaceutical Association, which met in New York during the first week in September. In the spirit in which the invitation was extended, kindly, but frankly and fear-

lessly, I discussed the grave evils which had grown up in and between both professions, and which seriously threatened such a complete divorcement of the two as had already occurred in most of the European countries, a result which it was insisted, ought to be avoided in their own interests, and still more for the welfare of the people. Speaking for this Association, after urging in no uncertain terms that duplication, substitution, counter prescribing, and especially the treatment of venereal diseases, and consequent debauching of boys and young men and infection of pure women, and the traffic habit-producing nostrums of the dangerous and dishonest kinds should be eliminated as conditions of the good will and patronage so important to them and so convenient to us, and after explaining the propaganda we are conducting for universal return to the U. S. Pharmacopeia and National Formulary as a guide in prescription writing, I held out the olive branch to all pharmacists in this country, a growing class, who conduct their business with an honest regard for the public welfare.

As a means of fostering relations so much to be desired between vocations existing for a common purpose, the prevention and treatment of human ills, I suggested the appointment of standing committees from the two associations for conference and cooperation in hastening and guiding these reforms, and for the consideration of any other matters of mutual interest. For instance, I raised the question as to the practicability of such a joint committee, indicating, probably from official formulæ already well known, as substitutes for the insidious narcotic and alcoholic nostrums so dangerous to the public, standardized domestic remedies, which any pharmacist could prepare from pure chemicals and sell for much less than is now paid for these habit-producing things and still at a legitimate profit to himself.

These suggestions were received with much favor by the leading members, and I was told by many that it ought to mark the dawn of a new day for both of these professions and the people. The nostrum interests were as prompt to recognize the danger to them from such a coordination of these scientific forces as we were to see its advantages and, through the low-grade drug and medical journals, public press and by private pamphlets and circulars, the flood-gates were again opened on the Association and its work, and especially on me. Their main purpose seemed to be to arouse the antagonism of the retail druggists all over the country, so long the dupes of these manufacturers with so little profit to themselves, but no pains, expense or falsehood were spared to reach the public also. In advance of my meetings at every point, professional and other prominent people had their mails burdened with circulars misrepresenting the purposes of the meetings and slanders of me. I am sure that many honest druggists were misled, especially of the narrow stay-at-home class, of which we have an abundant counterpart in our own profession, but the effect on the public was excellent. It aroused an interest in the meetings and excited a curiosity about my personality which greatly increased both the attendance and the enthusiasm. I have treated these attacks with the contempt they deserved, feeling sure that in their own time and way the reputable pharmaceutical journals and organizations would set matters right with all of their following for whose opinion one would care. In concluding this part of my report I desire to emphasize the desirability of creating a strong conference committee from this Association for the purposes above indicated.

On the way back from New York an extended itinerary was made in West Virginia, reaching nearly every important place in the state, during which I spoke twice or thrice daily to medical and popular audiences, often traveling long distances between appointments. I spent four weeks in Indiana in the same way, then spoke by special invitation on the nostrum question before the National Woman's Christian Temperance Union at Nashville, which could not have been more of an inspiration to them than it was to me. A little later I spoke at Yale before the faculty and the Civic Federation of Connecticut, and then before the American Health League in New York. Then followed comprehensive itineraries in Maryland and Delaware, addresses before the legislatures of Virginia and Kentucky, and at special meetings in the latter state, Indiana and Ohio. The last three months have been given to similar itineraries in Louisiana, Mississippi and Pennsylvania, speaking two or three times every day, special invitation being often accepted for me to speak at the state universities, normal, industrial and high schools. Such full accounts of all this from the pens of others have appeared in THE JOURNAL that any detailed report of them here is unnecessary.

The interest and the enthusiasm of both the profession and the people in this movement, when its methods and purposes are made clear to them, have amply compensated me for the labor and privation incident to it. Governors, legislators, judges, bishops and other clergymen, the chancellors and teachers in universities and colleges, editors, club women, labor leaders, business men and others prominent in all the walks of life have taken an active part in the discussions and promised support for all the reforms proposed. Even my descriptions of the poverty which so cripples the usefulness of a large element of the profession in most sections of the country often appeared to excite a more sympathetic interest among laymen than with the prosperous members of the profession, as was true of many other features of the work.

In fact, the chief difficulty confronting us in all this reform is that most of our medical schools, always representing the least progressive activity of the profession, although their faculties have been composed of its leaders, have utterly failed to grasp the importance of teaching their students the fundamental principles involved in real medical organization. How the physician may legitimately obtain practice when his location has been selected, how he should conduct himself in relation to other physicians, how and when he should collect his accounts, why he should join the organization and keep up his studies, the evils and dangers to both him and the public of lodge and contract practice, the downright dishonesty of commissions and divisions of fees—these and similar problems, will at once confront him in the complex life which he is entering, as they did his teachers before they became prosperous, and on their proper determination his success and usefulness as a physician and citizen will depend, and yet in all the past students have been turned out without instruction on these subjects. Next to the campaign for a higher standard of entrance requirements this is the most important duty imposed by this House on the Council on Medical Education, and by far the most practical question which now confronts the profession.

I have been able to make a study of these matters in a way and to an extent which has never before been possible to any other man. These things should always have been so ground into every student who entered a medical school in the past as to have made them an essential part of his very being. Because it was not done a large part of the profession has always been not only in poverty, but in such discord as to make it impossible for it to secure or enforce effective legislation against quackery in most states, or adequately to protect the public health. Because of this neglect of duty on the part of the schools, or rather their failure to recognize it as a duty, I have been sent from state to state and from county to county to corral such doctors as might be induced to attend, after they had been molded and baked wrong, and have tried to teach the new gospel of harmony and cooperation as a substitute for the old methods of suspicion, evil speaking and ostracism.

Appeals have been made to me to drop this part of the campaign, that I would arouse antagonism from those high in authority of the Association by persisting in it. Knowing the reproach that this neglect has brought to the profession, and the disasters it has brought on the people of my country, one-third of the sickness and one-third of the deaths every year being due to diseases from which they ought to be protected, and from which they could and would be protected by a properly trained and harmonious profession, I would be false to myself and recreant to the confidence you have so long and generously reposed in me if I did not lift my voice in daily protest against the outrage done to every student, and to the people who are to depend on him in all of his after life, who does not have full opportunity for such a course in the future.

In the fierce struggle for existence only a few of our medical schools have ever adopted any reforms not forced on them by authority of law. Yale, Bellevue and a few other leading schools have recently made this course prominent. Many have as yet given no indication of an intention to do so. The Kentucky board, of which I am the executive officer, has already made a regulation to go into effect after this school year that no school whatever will be recognized which does not give this course. It is my purpose to take up this matter with other boards in such a way as may ultimately make such a regulation universal. In addition, retiring from active work, as is my purpose, I desire here and now to serve notice on my school friends, and most of them are my warm personal friends, that in the leisure which is before me it is my purpose to reach every student body and student in this country with iterated and reiterated advice to keep out of every medical college which does not provide for this instruction, asking them to throw off some of the frills of the course, if necessary, to make room for it.

It only remains for me to tell you that when I leave this platform my official connection with the Association is ended.

For eight years I have been almost a stranger to my home and my family that I might serve you. My constant regret has been that my capacity for service was not greater. I want to urge on you that this work is in its infancy, and that it must be continued year by year until the new generation of students, educated as I am pleading they shall be in these matters, have taken our places, if the profession is ever to obtain the full measure of its usefulness to itself and the people. As a business proposition, on a very conservative estimate, I am convinced that my work has added indirectly hundreds of thousands of dollars to your revenues, but this is the smallest part of it, as will one day be known. At least two carefully selected men should be put in the field, and others should be added from year to year until the benefactions of this work are felt, not only by every doctor, but at every hearthstone in this great country—that is, until the profession is really organized.

In conclusion I want to urge you to stand by your great file leader, Dr. Simmons, while he is conducting this reform work to its conclusion. After standing by his side for eight years ,often when the result was in doubt, I have been able to know him as no other man ever can. He will make mistakes of the head in the future as he has in the past, but no one will ever be so ready to recognize and right them as he will. I know him, and you can trust him. And to each of you, my co-laborers, and the thousands of my friends you represent in cities, towns and country districts, may I now paraphrase the lines of the Scottish bard and say:

"The monarch may forget the crown,
So lately placed upon his brow;
The bridegroom may forget the bride,
To whom so late he made his vow;
The mother may forget the babe,
So lately fondled on her knee;
But I remember thee, my friend,
And all that thou hast done for me."

Reports of Other Committees.

OPHTHALMIA NEONATORUM.

The report of the Committee on Ophthalmia Neonatorum was called for, and on motion of Dr. Wisner R. Townsend, New York, the report was accepted as printed in THE JOURNAL, May 23, and referred to the Reference Committee on Hygiene and Public Health.

COMMITTEE ON TROPICAL MEDICINE.

The Secretary read the report of the committee on the organization of a Section on Tropical Medicine, as printed in THE JOURNAL, May 23, and on motion the recommendation of the committee was accepted and the committee discharged.

COMMITTEE ON SCIENTIFIC RESEARCH.

The report of the Committee on Scientific Research (Dr. Alfred Stengel, Chairman), was called for, and on motion the report was accepted as printed in THE JOURNAL, May 23, and referred to the Board of Trustees.

COMMITTEE ON NOMENCLATURE AND CLASSIFICATION OF DISEASES.

On motion, the report of the Committee on Nomenclature and Classification of Diseases was accepted as printed in THE JOURNAL, May 23, and referred to the Reference Committee on Hygiene and Public Health.

COMMITTEE ON DAVIS MEMORIAL.

The report of the Committee on Davis Memorial was called for, and on motion was accepted as printed in THE JOURNAL, May 23, and referred to the Reference Committee on Miscellaneous Business.

Resolutions on Medical Practice Laws.

Under the head of "New Business," Dr. G. Wythe Cook, District of Columbia, presented the following preambles and resolution, which were referred to the Reference Committee on Medical Legislation:

WHEREAS, The time has arrived when a medical practice law applicable to all the states and territories both as to qualification and reciprocity is urgently needed; and,

WHEREAS, The endorsement of such a law by the American Medical Association will be a potent factor in securing its universal adoption; therefore be it

Resolved, By the House of Delegates of the American Medical Association that the Committee on Medical Legislation or a special committee of five be instructed to formulate a general medical practice law such as will be applicable alike to all the states and territories of the United States, the provisions of which shall be such that licenses granted in one state or territory will be recognized in any other state or territory and that the American Medical Association recommends such law when approved by the House of Delegates to the constituent associations.

Report of Council on Medical Education.

On motion of Dr. Wisner R. Townsend, New York, the report of the Council on Medical Education was accepted as printed in THE JOURNAL, May 9, page 1543, May 16, page 1637, and May 23, page 1728, and referred to the Reference Committee on Medical Education.

Postgraduate Study.

Dr. John H. Blackburn, Kentucky, Chairman, presented the Report on Course of Postgraduate Study (THE JOURNAL, May 23).

On motion, the report was referred to the Reference Committee on Reports of Officers.

On motion, the House of Delegates adjourned until Tuesday, 2 p. m.

First General Meeting—Tuesday, June 2

The Association met at the Auditorium at 10:30 a. m., and was called to order by the President, Dr. Joseph D. Bryant, New York.

President Bryant introduced Rev. Charles Edward Cheney, who offered the following invocation:

Oh, Almighty God, whose love is infinite, and whose mercy is everlasting, we bless thy holy name, that in thy compassion thou hast provided not only for the salvation of sinful souls, but for the relief of bodies suffering with disease and pain. On this great assembly of men, consecrated to the tender ministries of their fellows, we humbly pray that thy richest blessing may be sent. Give them, we beseech thee, hearts that are softened by patient love like thine and minds enlightened with wisdom, quick to discern and skilful to help in every hour of need. May all their counseling together be ordered by thy grace, that the cause of science may be advanced, that the noble vocation to which thou hast called them may be honored even more in the future than it has been in the past, and that generations yet to come may rise up to call thee blessed. We ask this and every needed gift of thy bounty in the name and for the sake of Jesus Christ, our Savior. Amen.

Address by President Bryant.

Dr. Joseph D. Bryant then addressed the meeting as follows:

I have the honor of welcoming you to the fifty-ninth annual session of the American Medical Association. It may be of interest for you to know that this organization, which but a few years ago numbered scarcely 5,000 members, now numbers 30,000 members and is rapidly increasing in number. When it is recalled that the entire medical profession of the country numbers about 120,000, then, indeed, you will realize the great significance of this body of medical men and the power for public good which lies in its possession.

The objects of the Association, as set forth in its Constitution, are as follows:

The object of this Association shall be to promote the science and art of medicine. Contributing to this end, the Association shall endeavor to unite into one compact organization the medical profession of the United States for the purpose of fostering the growth and diffusion of medical knowledge, of promoting friendly intercourse among American physicians, of safeguarding the material interests of the medical profession, of elevating the standard of medical education, of securing the enactment and the enforcement of just medical laws, of enlightening and directing public opinion in regard to the broad problems of hygiene, and of representing to the world the practical accomplishments of scientific medicine.

All of these several things are being rapidly accomplished and the end thereof seems to be near at hand.

In conclusion, may I not request that in all public questions which relate to the enhancement of the public health and welfare the public shall implicitly trust us, we pledging ourselves to fulfil in all respects our obligations as citizens and professional men, which properly can be charged to our account.

Address of Welcome by Governor Deneen.

President Bryant then introduced the Hon. Charles S. Deneen, Governor of the State of Illinois, who was received with applause. He said:

Mr. President, Members of the American Medical Association, Ladies and Gentlemen:

The medical profession is, without doubt, of all professions, the one on which mankind comes nearest attaining unanimity

of opinion. Everywhere health is deemed the greatest of earthly blessings. There is no profession in which men have displayed greater devotion to the general welfare of mankind. One of the typical illustrations of this devotion, which has passed into a proverb, has been illustrated in art and made the theme of poetry and fiction—that of the country physician, braving the midnight storm over the lonely country road to carry succor to some distant patient—and the interval lying between the devotion of this solitary rural practitioner and the organized effort which has built great hospitals, established and administered free dispensaries and waged combined warfare on the ills that flesh is heir to, is filled with illustrations of self-sacrifice of the members of your profession. I do not profess any unusual familiarity with the details of the progress of the science of medicine, but its triumphs have been so conspicuously the triumphs of mankind at large over its most inveterate enemy, disease, that all men join in the recognition of universal indebtedness to your profession.

The American Medical Association has been one of the most active agents in the advancement of the science of medicine and in the establishment and maintenance of the high code of ethics to which the members of the medical profession conform. The members of your profession are ever ready to protect the public against every form of professional deception. Your reward has come from the universal confidence in which the members of your profession are regarded in all parts of the country. No other man enjoys this confidence to the same degree as the family doctor. Moreover, we are indebted to you for the cultivation of the fraternal spirit which is essential to the attainment of the best results in any intellectual or scientific calling.

The professional literature which has been issued directly or indirectly by your Association, through its influence, has been one of the chief means of bringing the practitioner in the remote parts of the country into close touch with the achievements of the more favored brethren in the great cities and medical centers; and in that way has extended the good influence of your Association to every nook and corner of the country. The benefits which are conferred by the central association on outlying members of the profession and their communities have, in their turn, been reflected back on the Association and strengthened it in numbers and widened the field for the circulation of its literature, and brought it in touch with new conditions and new problems. No profession has entered with greater zeal into the working out of plans for the general good—work which has been in a private mercenary sense without reward, but which in a larger social sense has earned a just reward and is an ornament to your profession, which is famed for its devotion to the public welfare. With this phase of the work of the medical profession I have been brought into close contact during the administration of the office of governor of this state. The zeal displayed by the physicians who have accepted duties and responsibilities which they could not have been induced to assume on any other consideration than a public-spirited desire of serving their fellow-citizens has been one of the pleasantest incidents of my official experience. Nothing could exceed the care and thoroughness with which work of this character has been prosecuted. The assumption by the state of a wider range of responsibilities has furnished a larger field of usefulness to this branch of medical work. It has made large contributions toward the improvement of the administration of our hospitals for the insane and our institutions for the feeble-minded. It has steadfastly championed projects for the erection by the state of public sanatoria for the treatment of tuberculosis and the establishment of colonies for epileptics. The work of your profession has extended beyond the combating of disease namely, to its provisions for the maintenance of sanitary conditions and the dissemination of information respecting helpful and healthful modes of living. On your profession society has depended in its great crises when plague and pestilence have invaded populous communities. All over the world this has been the case. In Illinois we have made a concerted defense which has been organized and successfully maintained by the medical profession against threatened invasions of yellow fever. To administer to the sick, to ameliorate and assuage suffering, to narrow the domain of disease and extend the boundaries of life—such is the noble work to which your profession and your organization is devoted. It is a high compliment to the city of Chicago that a gathering of the American Medical Association in this city constitutes the home-coming of the organization. This, I am informed, is the permanent abiding place of your Association—where the active work of the society is carried on. The keenest interest, therefore, is felt in this city and state in the work and growth of your Association. That interest takes on a personal quality from the fact that the man to whom, more than to any other person, the early success of this Association is due, who has been styled the "father of the American Medical Association," was for many years a resident of this city.

I trust that your present labors may be as fruitful as those of the past would justify us in anticipating. In these times, when such great achievements in science are chronicled almost daily, the public interest has been aroused to an unusual degree in the work of gatherings like this. Your reports will be read by thousands of persons unlearned in your profession, who are profoundly interested in the benefits which its achievements are calculated to bestow on mankind. I trust, therefore, that your stay here may be pleasant as well as profitable; that along with the substantial professional benefits which this convention may confer on you, you may retain a pleasant remembrance of your stay in our great metropolis and our state.

Address of Welcome by Chicago Commissioner of Health.

The Mayor, the Hon. Frederick Busse, not being able to be present, he was represented by Dr. William A. Evans, whom President Bryant introduced. Dr. Evans said:

Mr. President, Members of the American Medical Association, Ladies and Gentlemen:

In welcoming you to Chicago I speak for its Mayor. In selecting one of your number to extend his welcome he would not have you infer that he and the people are not interested in your deliberations. It is a custom from which he does not vary to delegate these privileges to members of his cabinet. His recognition of the organization in medicine is probably known to most of you, and behind the welcome that he feels and for which he stands is the interest of more than 2,000,000 people. They are glad to have you here for many reasons.

In thousands of our homes there sit consumptives, hopefully watching investigations and deliberations which some day will mean life to them and their kind, praying God it may so speed that succor shall reach them before they sink. The victims of cancer add to this prayer. The mother, whose child has scarlet fever, is praying that you may make his scarlet fever go the way that diphtheria has gone. No discussion can do its best until there is rhythm with its surroundings. The laws of harmony are the laws of God. They apply to all things.

As you came to this city you traversed miles of marsh. Some of you may not know that this building stands on a once reed-covered marsh, and that the waters of Lake Michigan lapped its eastern border. I need not tell you that Death stalked the streets of the city, and disaster sat at its fireside. The people learned their lesson. They raised the city level; they blasted a $30,000,000 channel for drainage. They, the people, made this in health the Queen City of America, and I say that they are in harmony with you.

Our citizens will watch your deliberations with interest. Your history is rich with achievements, and your purposes are larger still. In the full white heat of fierce discussion you pour the raw, crude oil of thought; you burn out all dross that the truth may live and that men may be blessed.

Our people are interested in your ambitions, because they are potential for human happiness. They understand that you contemplate asking for Cabinet provision; that you appreciate and would have the government appreciate the economics of health as well as the economics of agriculture and of trade. They understand the basic relations of agriculture and of commerce to prosperity; but they still further understand that there can be no individual or national wealth without proper regard for national health. They know that this is the work of education and stimulation of public interest, and the vantage ground which is demanded for the proper appreciation of these economic factors is in the cabinet of the President of these United States.

And, now, gentlemen of the American Medical Association, and ladies of the same organization, having told you these things, I am sure that you appreciate that at the hands of the people of Chicago your welcome is assured.

Address by President of Illinois State Medical Society.

President Bryant introduced Dr. J. W. Pettit, President of the Illinois State Medical Society.

Mr. President, members of the American Medical Association, Ladies and Gentlemen:

When it was suggested that the American Medical Association be invited to meet in this city, the Illinois State Medical

Society asked the Chicago Medical Society for the privilege and honor of joining in that invitation and assisting in your entertainment; hence you are the guests of the medical profession of the State of Illinois, as well as that of the City of Chicago. In this great West we are men of action rather than words, as witness this great city, the growth of a lifetime of one man, and that man still living within its precincts, which, in addition to the evidence of material prosperity which is about you, has some of the best medical colleges, hospitals, medical teachers and practitioners to be found anywhere in the world.

We welcome you to this great city, an empire in itself, whose development has been no less marvelous than this great state in which it is located. Without further formality, as the official representative of more than 5,000 members of the Illinois State Medical Society, I bid you a cordial welcome and invite you to partake of our hospitality.

Address by President of Chicago Medical Society.

President Bryant introduced Dr. Henry B. Favill, President of the Chicago Medical Society.

Mr. President, Ladies and Gentlemen:

In the twenty-one years that have elapsed since the American Medical Association met in this city, that Association has undergone an astonishing development. Numerically it has become comprehensive and imposing; organically it has become efficient and powerful. Its strength lies in the unanimity of its composition, one coherent, connected body of cooperating units. It is an organization of high reciprocal service. The main body is maintained and made up of its individual units, but these units are energized and made potent by the influence and power of the central organization. It is an institution that invites loyalty, and loyalty dominates the organization.

The Chicago Medical Society is one of its component units which make up the grand body. In that space of time, twenty-one years, this organization has become a remarkable body; nearly 2,400 members, varied in interests and in conditions, heterogeneous, cosmopolitan, it is yet a united and aggressive body. The Chicago Medical Society takes a proper pride in its own being, but in its relation to the American Medical Association it takes a greater pride. It realizes that with respect to its own interests and activities its salvation lies within itself. But it realizes further that the fullest measure of power and usefulness for it is dependent on the national organization. The Chicago Medical Society is anxious to fulfil its entire function. Among other things, it is proud and gratified to be permitted this year to be the host of the American Medical Association. It realizes that for every effort put forth, that for all the plans taken to make this meeting a success, it will be rewarded tenfold in interest and spirit and comprehension of the magnificent purposes to which this organization is consecrated. We have another touch of feeling here in Chicago on this subject that is purely sentimental. Chicago is the home, and the Chicago Medical Society the seat of the daily activities of the man who struck the first blow toward the organization of the American Medical Association—our beloved, revered N. S. Davis. Nothing that we can say locally is adequate to express our feelings toward him, nor of his relation to the medical profession in its highest and broadest and deepest aspects.

Mr. President, Trustees, members of the American Medical Association, in behalf of the Chicago Medical Society it is my privilege to cordially and appreciatively extend to you its warmest welcome.

Announcement by Dr. M. L. Harris.

President Bryant introduced the Chairman of the Committee of Arrangements, Dr. M. L. Harris, who said:

It has been necessary to make one slight change in the program as printed, to this effect, that the Oration on Medicine by Dr. William S. Thayer, of Baltimore, and the Oration on State Medicine by Dr. Charles Harrington, of Boston, both of which are semi-public in character, and to which you are all invited, will be held this evening at Orchestra Hall at 7:30 o'clock.

The Oration on Surgery by Dr. George W. Crile of Cleveland, will be delivered this afternoon at 2 o'clock in the same hall.

The various entertainments which have been provided, and which have been announced in the little booklets, have been arranged with the expressed hope and expectation that you will all avail yourselves of them, and that there may be no hesitation in your going and coming and in your enjoyment of these entertainments, the committee has made a special arrangement to have this beautiful weather continue throughout the week.

President Burrell's Address.

Dr. Joseph D. Bryant then said:

It is now my great pleasure to introduce to you one whose constructive ability and discreet foresight make for higher rank and higher station of medicine—Dr. Herbert L. Burrell, of Boston, President-elect of the American Medical Association.

President Burrell then delivered his address, which appears on the first page of this issue of THE JOURNAL.

Society Proceedings

COMING MEETINGS.

Massachusetts Medical Society, Boston, June 9-10.
American Climatological Association, Boston, June 9-11.
Maine Medical Association, Bangor, June 10-11.
Indiana State Medical Association, French Lick, June 18-19.
Medical Society of New Jersey, Cape May, June 18-20.
Medical Society of State of North Carolina, Winston, June 16-19.
Michigan State Medical Society, Manistee, June 24-25.
State Medical Society of Wisconsin, Milwaukee, June 24-26.

ASSOCIATION OF AMERICAN PHYSICIANS.

Twenty-third Annual Meeting, held in Washington, D. C., May 12-13, 1908.

(*Continued from page 1820.*)

Physical Therapeutics.

DR. R. TAIT MCKENZIE, Philadelphia, said that exercise as a therapeutic agent should include all means by which the body may be acted on by movements, active or passive, performed by the patient himself, with or without the aid of apparatus; by the hand of an operator or by a machine devised to replace it. Active exercises include games, which preserve and cultivate the old co-ordinations of throwing, catching, striking, climbing, running and leaping, necessary for the complete development of the individual, difficult to get naturally under city conditions. These are subdivided into exercises of effort and of endurance. Contraindications to exercises of effort are arteriosclerosis and advanced age; valvular heart disease; active tuberculosis of lungs. Contraindications to exercises of endurance are anemia or cachexia from any cause. In sound young men exercises combining both, like boat racing, show no evil effects. He discussed active and passive movements, mechanotherapy. Under posture he called attention to the faults seen in the spine and arch of the foot, treatment consisting in stretching of contracted parts and development of normal muscular control. Under the division of heart and circulation he referred to Oertel's demonstration on himself and the possibility of climbing exercises accompanied by limitation of fluids and the drying out treatment for heart and obesity cases; also to the Schott treatment by carbonated baths. In obesity reduction the course is best undertaken up to the age of 40. Exercises should be trunk flexions and rotations, thigh abductions, flexions, etc., using the large muscle masses; hill climbing is useful when possible. Dr. McKenzie also considered the proper exercises for constipation, hernia, diseases of the nervous system, as neuralgia, headache, neurasthenia, infantile paralysis, stammering and tabes dorsalis. Exercise in its application to pathologic conditions must depend for success on accuracy of dose, persistence in following out course of treatment and careful observation during the progress of such a course.

Discussion on Therapeutics.

DR. HARE, Philadelphia, said that there is still a wide difference between experimental pharmacology and bedside practice; a large amount of success depends still on empiricism and the success of the older man over the younger one depends on his wider experience in empiricism. The extraordinary ability of the body to recover from the onslaughts of disease is hardly

more than the ability to recover from the onslaughts of medication against disease. There is no doubt that psychotherapy is of great value in practice, but the danger is that it may be used to the exclusion of other remedial measures and he thinks that the paper on the phychic treatment of constipation illustrates this. It is more rational to use psychotherapy in connection with other remedial measure. It would be wrong to give up some of the methods of treatment that have proved good in the hands of our forbears until we can prove that others are worthy of replacing them.

Clinical Value of the Tests of von Pirquet and Calmette.

DRS. CHARLES L. GREENE and FRANK E. BURCH, St. Paul, reported experiments confined almost entirely to individuals about the age of eight years. In 21 of 83 patients in whom tuberculosis was known to be present they obtained one or both reactions. In 15 suspected tuberculosis cases eight gave positive reactions to one or both tests. They conclude that the reaction runs parallel to the old injection test inasmuch as the percentage of reactions closely approximates those found by the old method. The more vigorous reaction seemed to indicate more vigorous resistance. Late reaction was more common in arrested tuberculosis. Advanced cases of low resisting power gave slight reaction or none at all. Positive reactions in general clinical cases were so numerous as often times to be merely suggestive.

Comparison of the von Pirquet, Calmette and Moro Tuberculin Tests.

DRS. S. MCC. HAMILL, HOWARD CHILDS CARPENTER and THOMAS A. COPE, Philadelphia, reviewed the technic pursued in the carrying out of the various tests, gave a description of the class of cases in which they are used, the results as applied to each class, a statement as to the relative merits of the three tests, a report on some experimental work on rabbits and a review of some points of interests from the literature of the subject. Practically all the patients were under eight years of age.

THE OCULAR TUBERCULIN REACTION—A WARNING.

DRS. M. J. ROSENAU and JOHN F. ANDERSON, Washington, D. C., called attention to some experiments made with this reaction—the facts being in brief, that the normal conjunctiva of the non-tuberculous individual may be sensitized by the instillation of the tuberculin. The reaction was marked by the rapidity with which it came on and the severity that characterized it. The lesson to be drawn was that such a reaction has no clinical significance; the tissue is able to respond so quickly to a poison or organism and shows how Nature's immunizing forces may be concentrated at the point most needed.

Tronchin.—A Sketch of His Life.

DR. F. C. SHATTUCK, Boston, read this paper, which would not admit of abstraction, but should be read in full.

Fatigue in School Children as Tested by the Ergograph.

DR. R. G. FREEMAN, New York, gave a description of different forms of the ergograph which have been used, and a review of previous work with the ergograph to test fatigue. He reviewed the work done some years ago by Dr. Christopher in Chicago, showing the fatigue coming on up to the noon hour; return after the noon recess, and increasing to the end of the school day. He thinks that the school day should be so modified that such fatigue should not result. He is of the opinion that the Crampton method—taking the blood pressure and pulse rapidity—is of no value in these tests. The ergograph is valuable in testing for fatigue, but in the public schools of New York he has not found such fatigue as described by Dr. Christopher in Chicago.

Ascitic Exudate in Typhoid Fever.

DR. ALEXANDER MCPHEDRAN, Toronto, said that the condition was first observed in 1905. He cited but the case of a woman, extremely ill, temperature 105 F., with marked bronchitis, who had had asthma for some years. The diagnosis was not cleared up for several days, when the disease proved to be typhoid fever, typical in every feature. The third week the abdomen became distended; remained soft, however, and was non-resistant, but fluid could be demonstrated in both flanks. The fluid persisted for three or four weeks and then the abdomen assumed the position of retraction. It represented one of a type of four cases seen since 1905. There was nothing to indicate any inflammatory process in the abdominal cavity. In one case there was considerable tension of the abdominal wall with much tenderness.

Pleural Reflexes.

DRS. JOSEPH A. CAPPS and D. D. LEWIS, Chicago, reported a comparative study of the effect on blood pressure of irrigating with various antiseptics the pleural cavities of healthy dogs and dogs with pleurisy, and a series of experiments to determine the effect on blood pressure of various irritants applied to the parietal pleura. They pointed out a year ago that certain irritants applied to the cavity cause fall in blood pressure and in the past year carried on a group of experiments in which irrigation was used. They took a series of dogs and washed out the pleural cavity with various fluids and antiseptic solutions and noted the effect on blood pressure. The amount of fluid generally used was about 50 cm. When an irritating fluid was employed it was washed out soon after with water. They conclude that even in the normal pleural cavity such irrigations may cause fall of blood pressure; in the case of pleurisy the reaction is more marked. The average fall of pressure was decidedly more marked in the case of pleurisy than in the normal animal. They believe that it is not altogether safe to use the solutions in the pleural cavity.

DISCUSSION.

DR. F. C. SHATTUCK, Boston, thinks that if Dr. Capps pursues further his interesting experiments perhaps he will determine the influence on the blood pressure of a solution of chlorinated soda, which has been used for many years by A. T. Cabot as an irrigant in operative cases of empyema and with admirable clinical results.

DR. S. J. MELTZER, New York, said stimulation of most sensory areas produces rise in blood pressure and he was a little surprised at the uniform fall in blood pressure that the writers report. In pleurisy one would expect the surface to be covered with fibrin so that it might not be stimulated. It would be interesting if this were true of the pleural cavity alone.

DR. J. A. CAPPS said that the method of tabulating and the limitation of time had prevented discussing the other phenomena. It is not true that the charts show a uniform fall of blood pressure; there are rises a number of times. It was intended only to show the possible danger of using the solution.

Splenic Anemia, Splenectomy, Recovery.

DR. MORRIS J. LEWIS, Philadelphia, reported the studies of the blood covering a period of seven years; four before and three following the operation. Slight enlargement of the spleen was first detected in 1900, with gradual subsequent increase in size, until 1904, the year of operation. There was moderate anemia of four years duration, followed by profuse hematemesis, and by melena, which occurred shortly after an examination that proved the blood to be practically normal, viz.: hemoglobin 90 per cent., red blood count, 5,000,000; white, 6,100. There was rapid fall in hemoglobin to 18 per cent. and red blood count to 1,100,000. There was history of indigestion of long standing. Gastroenterostomy was performed on the theory of possible gastric or duodenal ulcer, followed by a gradual gain in health, and practical cessation of melena. The question arose as to whether this gain was due to an accidentally performed Talma's operation brought about by adhesions, or to the enforced quiet of the stomach. Splenectomy was done in 1904, four months later. Accurate study of the effects of splenectomy on the blood changes were interfered with by inflammatory complications, viz.: pleural effusion, pericarditis and abscess in wound. High total leucocyte count immediately after operation, and during time of complications, reached 24,000 per cm. and rapidly fell during convalescence to average of 10,000, which average is still maintained. Eosinophilia immediately after operation was apparently modified by the complications, but reached its highest point, 1,300 per

cm., two months later. Eosinophilia still persists three years after operation, viz.: 570 per cm. and with little change in the lymphocytes.

DR. J. B. HERRICK, Chicago, reported a case seen two years ago of a young man suffering from pneumonia in whom he noticed a large scar over the abdomen and asked the cause and was told that a surgeon had operated for tumor of the spleen. Dr. Ochsner, who did the operation, said that the organ had been removed with considerable difficulty because of adhesion and measured 22x16x8 cm. The diagnosis was primary splenomegalia. It added one to the list of patients who had survived the operation in splenic anemia.

DR. A. D. BLACKADDER, Montreal, reported a similar case of splenic tumor in which the size of the spleen prevented the patient from taking much food because of pressure on the stomach. The case went to operation and a peculiarity of it was dense adhesions to the transverse colon. The patient made an uninterrupted recovery and several examinations after the operation showed the condition stated by the essayist.

Relation of Urobilinuria to Bile Pigment in Blood.

DRS. L. A. CONNER and J. C. ROPER, New York, attempted to throw some light on the source of the urinary urobilin. By the use in a large number of pathologic cases of a clinical method of determining the presence and amount of bile pigment in the blood serum they have been able to demonstrate that, in most cases at least, the existence of urobilin and its chromogen in the urine bears a direct and quantitative relation to the presence of bilirubin in the blood; and that in such cases no urobilin is demonstrable in the blood. An exception to this general rule has been found in certain pneumonias in which, although no bile pigment could be detected in the blood, urobilin was present in both the blood and urine. A possible explanation of this peculiarity is that there might be some relation between the pneumococcus and the production of the urobilin, or that it might come from the reduction of the pigment by the pneumococcus. They considered this of prognostic value if nothing else.

DISCUSSION.

DR. JAMES EWING, New York, said in eclampsia there is marked increase of urobilin in the blood which, of course, could not be attributed to such origin; it had been attributed by some to disorder of the hepatic function.

Relapsing Fever With Demonstration of the Spirochete.

DR. JOHN W. HUNTER and DR. THOMAS A. COPE, Philadelphia, presented a historical review of the disease; a résumé of the recent work done on the subject, including serum studies; means of transmission and recognition of different varieties; and the histories of their two cases. The first case was imported from Europe, and the second patient, who had lived in this country for over a year, acquired the disease through sleeping with the first patient after he had developed the fever. The organisms were demonstrated under the microscope.

Action of Purgatin on the Kidneys.

DR. FRANZ PFAFF, Boston, described his results, positive and negative, in a series of experiments with the action of purgatin on animals. He also tried it on a parturient woman and she voided urine containing casts. In two others the quantity of albumin was increased; he warned strongly against using it in parturient women or patients with kidney disease. He had used it with dogs, cats and guinea-pigs; in rabbits it did not purge, but the urine contained albumin and the intestines and internal organs showed discoloration. Two cats lost appetite, became weak and died from exhaustion; the urine showed but slight traces of albumin, but autopsy showed acute nephritis. In ten experiments on rabbits there was marked nephritis in nine with desquamation of epithelial cells; guinea-pigs showed the same effect. Three dogs did not show any deleterious smyptoms. The writer concludes that purgatin in certain animals does cause acute Bright's disease and death, and that in human beings it may cause kidney trouble and that it has no advantage over other purgatives and should not be used in clinical therapeutics.

(To be continued.)

ILLINOIS STATE MEDICAL SOCIETY.

Fifty-eighth Annual Meeting, held at Peoria, May 19-21, 1908.

The President, DR. WILLIAM L. BAUM, Chicago, in the Chair.

An address of welcome was delivered by Hon. Thomas O'Connor, mayor of Peoria, which was responded to by President Baum.

The election of officers was reported in THE JOURNAL last week under Illinois News.

Psychopathology of Hysteria.

DR. S. T. ROBINSON, Edwardsville, reviewed the two ideas generally held, (a) that of the entity or dominating soul of the plain man's belief, and (b) the coordination of the experimental psychologists. Mentioning some of the conclusions of psychic research investigators, he argued that the late evidence justifies the presumptive view that both elements enter into the personality. Thus he considers the controversy largely reconciled. There is, accordingly, a union which is both a great colonial empire, with many apparently independent centers, and an empire which is dominated by an indwelling soul. Next, he outlined the further division of this complex personality into the supraliminal and the subliminal spheres. These he discusses with special reference to the subliminal self and the threshold of consciousness. To these elements of the healthy mind he adds those of potential memorability, whereby facts are assimilated and stored in the subliminal self; selection, whereby the necessities of the moment are satisfied, and, finally, the law of psychic cohesiveness, the psychic analogue of gravity in the physical world.

Out of these psychologic elements, when they become unhealthy, he deduces the four main factors which underlie hysteria: (1) Psychic poverty; (2) lack of cohesiveness; (3) morbid selection; (4) undue permeability, or instability of the threshold. First, the author reviews the morbid subliminal life in a personality suffering from psychic poverty and lack of cohesiveness, which may let go of the life above, with, for instance, the production of anesthesias, and then he shows how the narrowed life above may be disastrously influenced from below with, for instance, evolution of the fixed idea. Suggestibility, absent-mindedness, alternation, and anesthesia, he mentions as the chief stigmata, so lucidly described by Janet, and concludes that as hypnotic suggestion is to the subliminal life, so hysteria is to the ordinary consciousnes. Genius and hysteria are set down as the two far-distant poles of human personality, the one produced by healthy cooperation of the subliminal and supraliminal faculties, while the other is due to the incoordinated uprush of subliminal impulse in a retracted field of supraliminal consciousness.

Arteriosclerosis.

DR. THOMAS J. PITNER, Jacksonville said that in considering this disease we are approaching the origin of many diseases. The study of this process throughout the body tends to broaden our views of the nature and causes of local diseases by showing how largely they are due to antecedent widespread arterial changes. Arteriosclerosis is a primary pathologic process. There are no morbid anatomic changes preceding it. The principal element of the disease is the fibrous proliferation of the internal coat. The other coats are involved, but not so generally and constantly. The artery becomes thickened and hardened with narrowing of the lumen and subsequent degeneration.

DISCUSSION.

DR. F. ENGELBRECTSON, Chicago, referred to the deposit of salts in the development of the osseous system, and asked what becomes of these salts after the bones are started. The system is not ready to eliminate them; they must be deposited somewhere; and he thinks the non-elimination of these salts produces many conditions, including arteriosclerosis.

DR. WILLIAM J. BUTLER, Chicago, thinks that cardiovascular disease dependent on syphilis, whether it be aortitis or arteriosclerosis, or a myocarditis in conjunction with it, is benefited by the use of potassium iodid or calomel.

DR. ROBERT PREBLE, Chicago, referred to the uncertainty of prognosis in these cases. No matter what the manifestations may be, whether renal, cardiac, cerebrospinal, or gastrointestinal, the clinical picture is susceptible to sudden variations in character, and in advanced cases of arteriosclerosis, cerebral hemorrhage or thrombosis may suddenly develop. There may be some severe circulatory or gastrointestinal disturbance, thrombosis or embolism, and hence the great liability of these patients to sudden death.

DR. JOSEPH L. MILLER, Chicago, said that many of these cases are benefited by the use of iodids where the cause or causes are not of syphilitic origin.

DR. C. D. WESTCOTT, Chicago, said that the oculist not infrequently sees changes in the retinal vessels of these patients in the course of routine examinations for refraction. These changes are noted most commonly in middle life, in those who do not suspect any constitutional condition. When the oculist observes these changes in the retinal vessels, the patients should be referred to a good internist.

Diabetes.

DR. JAMES B. HERRICK, Chicago, emphasized the importance of differentiating the clinical types of diabetes, and spoke of the value of other factors than the mere estimation of the amount of sugar in the urine in determining the severity of a given case. Reference was made to the principle of tolerance of carbohydrates and the practical application of the same treatment. He spoke of the necessity for carbohydrates and their place in warding off impending coma. He detailed the oatmeal diet of von Noorden, described the technic of its administration, and its importance when properly used as a therapeutic agent.

DISCUSSION.

DR. FRANK BILLINGS, Chicago, from his experience with the oatmeal treatment of von Noorden, unreservedly agreed with all that Dr. Herrick said. Until more is known about the cause of diabetes, the management of patients suffering with the disease must be along lines that are thought best.

DR. HERRICK said that exercise, as a rule, does not harm a patient with diabetes. In fact, moderate exercise is rather beneficial, and in putting patients on this diet he has never restricted them as to exercise unless there has been some special reason for it. The oatmeal diet is a valuable therapeutic agent, yet he is firmly convinced that it is also attended with danger. He does not wish to convey the impression that it cures diabetes. He has, however, seen what he regards as very favorable results in children. He mentioned a little girl of twelve, whose life was prolonged a year and a half by this treatment with only traces of sugar in the urine at any time.

Food Values in the Nutrition of Children.

DR. JOSEPHINE MILLIGAN, Jacksonville, described the practical application of food values in every day practice in the nutrition of children from the age of nine months to puberty. In chronic disease the nutrients and calories should be kept at the full standard or slightly above. In convalescents the nutrients and calories should be increased. A convalescent child may demand even as much as an adult. When as much study and attention have been paid to the diet of children over nine months of age as have been expended on children under nine months, another great advance will have been accomplished, not only in life saving for children, but in better development and healthier bodies and mind for the adult.

Drug Treatment of Cardiovascular Conditions.

DR. JOSEPH L. MILLER, Chicago, emphasized the importance of an accurate knowledge of the action of drugs. Reference was made to drug nihilism. Our knowledge of pharmacology is based on the action of drugs on normal animals, and he pointed out the fallacies in applying this to the treatment of diseased conditions, using such agents as vasoconstrictors, digitalis, strophanthus, caffein, camphor, adrenalin. He pointed out the indications and dangers of using vasodilators, nitroglycerin, nitrites, amyl nitrite, etc.

Study of Diagnosis and Pathology Should Not Lessen Our Confidence in the Intelligent Use of Drugs.

DR. THOMAS W. BATH, Bloomington, as regards the routine drug treatment in diseases not specifically influenced by drugs, believed that many patients are over-drugged, especially by physicians who are somewhat too credulous in the claims of materia medica and drug circulars. Until the riddle has been solved with reference to those diseases which are still treated expectantly, physicians will best serve their patients not by giving placebos or suggestions or Eddyism, but by taking a sensible view of the case and in offering nature a helping hand when she desires support.

(*To be continued.*)

MONTANA STATE MEDICAL ASSOCIATION.

Thirtieth Annual Meeting, held at Butte, May 13-14, 1908.

The President, DR. W. W. TAYLOR, Kalispell, in the Chair.

The association met in the council chamber of the city hall. The address of welcome was delivered by Joseph Corby, mayor of Butte.

The attendance was the largest in the history of the association, 72 registering out of a membership of 156, which, compared with the total of less than four hundred physicians in the state, offers a creditable percentage. It was decided to print a bulletin containing the minutes of the meeting so that those not in attendance would be informed as to what took place at the meeting.

Officers Elected.

The following officers were elected: President, Dr. I. D. Freund, Butte; vice-presidents, Drs. Rudolph Horsky, Helena; C. W. Jump, Bozeman, and E. F. Dodds, Missoula; secretary, Dr. Grace Wilson Cahoon, Butte; treasurer, Dr. C. T. Pigot, Butte; delegate to the American Medical Association, Dr. Donald Campbell, Butte; new councilors, Drs. M. D. Hoyt, Glasgow; J. F. Blair, Bozeman, and W. F. Cogswell, Livingston; old councilors retained, Drs. T. J. Murray, Butte; George W. King, Helena; E. W. Spottswood, Missoula; A. E. Williams, Havre; C. F. Tidyman, Ennis, and F. M. Flinn, Libby.

Missoula was chosen as the next place of meeting.

President's Address.

DR. W. W. TAYLOR, Kalispell, said that the Montana State Medical Association is thirty years old, only fourteen years younger than is Montana itself, and about five years ago adopted the general plan of organization then established in most other states. All but a few of the counties of Montana are now represented in the county organizations and nearly one-half of the licensed physicians in the state are members of the state association. In a state with an area of more than 146,000 square miles and less than four hundred physicians it is a matter for congratulation that so many were able to attend the annual meeting; but the association, in order to justify its existence, must extend its benefits to those unable to attend. Among the objects for which the association should work are the enactment by the various states of a uniform medical practice act establishing a single examining board, in line with the recommendations of the Council on Legislation of the American Medical Association; the abolition of competitive bidding for the contract to furnish medical services to the poor, and the publication by the association of an annual bulletin.

Thrombophlebitis.

DR. H. D. KISTLER, Butte, considered the etiologic factors of thrombophlebitis under three heads: blood changes affecting coagulability; structural changes of the vessel wall, and simple retardation or stoppage of the blood current.

Spotted Fever.

DRS. H. T. RICKETTS, Chicago, and W. M. CHOWNING, Minneapolis, who are investigating the spotted fever of the Bitter Root Valley, gave interesting talks of work they are doing.

Anencephalic Monster—Chorionepithelioma of the Testicle.

DR. SAMUEL T. ORTON, Anaconda, presented a specimen of an anencephalic monster, and gave a brief clinical history of a case of chorionepithelioma of the testicle.

Drainage of the Peritoneum in General Peritonitis.

DR. T. C. WITHERSPOON, Butte, described three cases in which a drain placed in the pelvic basin, through a lateral incision in the abdomen, such as is made for operation for appendicitis, caused obstruction of the bowel because of tight adhesions to the lateral pelvic wall in the route of the drain. Operation revealed, in each case, the peritoneum free from inflammation except at the point where the local purulent drain passed out of the pelvis. Dr. Witherspoon called attention to the fact that a glass tube, placed through a suprapubic puncture, amply drains the entire peritoneum when the patient is placed in the Fowler position, and that drains about the appendix stump should extend only to the head of the cecum and not below the pelvic brim.

Anatomy of the Nose and Its Accessory Sinuses.

DR. PETER POTTER, Butte, demonstrated, by means of drawings and specimens hardened in formalin, the anatomic relations of the nose and its accessory sinuses. He also gave a summary of the chief symptoms of diseases of the sinuses, indicated the differential points and outlined treatment methods.

Goiter.

DR. G. T. MCCULLOUGH, Missoula, described the treatment of goiter by parenchymatous injections of a solution of iodoform in sulphuric ether and olive oil, and reported three cases

New Method for Resecting the Liver.

DR. JACOB FRANK, Chicago, described an operation which he first performed in 1902, in experiments on sixteen dogs. For laceration of the liver or growth in a transverse direction, he incises the liver tissue on the upper surface, beginning at the healthy border on the hypochondriac side of the growth or injury, carrying the knife around the part to be removed to the border of the viscus on the epigastric side, in such manner that the incisions on the upper and under surfaces meet exactly, removing a wedge-shaped section, and leaving the liver with two flaps forming a trough. These two flaps are cut so as to fall into perfect coaptation and, after the hemorrhage is checked, are sutured together so as to re-establish the continuity of the liver surface. If a portion of the liver is to be removed in a longitudinal direction to the viscus, a wedge-shaped portion of the entire thickness of the liver is first cut out. The two broad raw surfaces left by the excision of wedge-shaped pieces are converted into troughs, each having two flaps to be approximated. When the operation is completed, the raw surfaces of the original V left are transformed into smooth, continuous liver tissue, assuming the form of liver borders, while the V space persists as a notch. This method facilitates suturing and makes the arrest of hemorrhage easy. Not enough blood was lost to produce shock or anemia in any of the dogs. The operation has been performed on five patients, of whom four recovered and one died.

Mistaken Conclusions from Blood Examinations in Children.

DR. E. B. PATTERSON, Phillipsburg, reported two cases in children, one of which presented many of the symptoms of acute lymphatic leukemia, while the other was originally diagnosed as an intussusception. Both proved to be cases of acute otitis media. Dr. Patterson recommended the examination of the ears in all doubtful or obscure cases in which children are patients.

Asexualization for the Prevention of Idiocy.

DR. AUSTIN L. WARD, Boulder, presented a paper advocating the asexualization of idiots and imbeciles under supervision of a medical board chosen for the purpose from among those who are peculiarly qualified as judges. He said that this, like vaccination, should be authorized by legislative action and enforced by those in authority.

Chart of Optotypes.

DR. CARL SCHULIN, Billings, demonstrated a new chart of optotypes. He believes that anomalies of refraction do not produce, but only aggravate, disease.

Perverted Metabolism.

DR. C. E. RIGGS, St. Paul, read a paper on "Perverted Metabolism, Its Relation to Certain Neuroses and Psychoses."

WEST VIRGINIA STATE MEDICAL ASSOCIATION.

Forty-first Annual Meeting, held at Clarksburg, May 13-15, 1908.

The President, DR. WILLIAM W. GOLDEN, Elkins, in the Chair.

The House of Delegates met at 8 p. m. May 12. The reports of the various committees and delegates to state and national associations were received.

The Committee on Medical Defense made an elaborate report, recommending that the association adopt, for protection of its members from malpractice suits, measures similar to those of New York, Pennsylvania, and other societies. After much discussion, it was decided to postpone definite action on this until next year.

A committee was appointed to revise the constitution and by-laws, as recommended by the secretary.

The eye, ear, nose and throat men were granted permission to organize a section to hold separate meetings during the session of the state association.

Officers Elected.

The following officers were elected: President, Dr. V. T. Churchman, Charleston; vice-presidents, Drs. R. J. Reed, Wheeling, R. H. Powell, Grafton, and H. D. Hatfield, Eckman; secretary, Dr. T. W. Moore, Huntington; treasurer, Dr. T. L. Barber, Charleston. Council: First District, Dr. H. P. Linsz, Wheeling; Second District, Dr. R. E. Venning, Charles Town; Third District, Dr. P. A. Haley, Charleston; Fourth District, Dr. T. P. McGuire, Parkersburg; Fifth District, Dr. J. B. Kirk, Elkhorn; Sixth District, Dr. J. E. Rader, Huntington.

The time of meeting was changed to October. Elkins was selected as the next place of meeting.

The general meeting was called to order Wednesday, May 13, 10 a. m., by Dr. W. W. Golden.

The addresses of welcome were delivered by Hon. E. J. Wood, mayor of Clarksburg, and Dr. D. P. Morgan, Clarksburg. Response by Dr. W. C. McGuire, Huntington.

The president-elect, Dr. Fleming Howell, Clarksburg, delivered the annual presidential address and took the chair.

The Mission of the Physician—Oration in Medicine.

DR. G. D. LIND, New Richmond, reviewed the history of medicine, showing that progress in medical science has been greater than in any other line except general science and invention; in fact, the physician has in these days become a scientist and an inventor. There is yet much to be accomplished. The physician needs government aid and financial help. When this is forthcoming it will be only a question of time till all infectious diseases will be under complete control. The millionaire was appealed to for aid in medical research, and the younger men in the profession for the consecration of their energies to medical progress. More special writers in the laboratory are needed. The physician should be better educated and all physicians should be teachers. Instruction in business methods should be a part of the curriculum of colleges. Many great men have accomplished much important work after the age of 70. If physicians could, and in many cases they do, prolong life for only a year or two, the sum total of human achievement would be inestimable.

Complication and Sequelæ of Nervous System in Influenza.

DR. J. R. BLOSS, Huntington, called attention to the relative frequency of nervous complications, especially the minor ones. He stated that they are due to the disturbances of nutrition, high fever, and toxic changes in the blood brought about by the invading bacteria. He enumerated the minor complications and sequelæ; called attention particularly to the paralysis of nuclei and nerves, giving "grouped paralyses"; believed that special care should be exercised in giving anesthetics soon after influenzal infection, because of the impairment of the cardiac, respiratory and vasomotor nerves; stated that while influenza may initiate neurasthenia, it will generally be found that there have been previous symptoms; the types do not differ from the ordinary ones. His experience in a state asylum has been that patients suffering with psychoses of the depressed types are more apt to relapse or have their existing disease exaggerated

by influenza than are the agitated cases. The prognosis is favorable in the majority of cases.

Protection from Malpractice Suits.

DR. H. G. NICHOLSON, Charleston, advocated raising the standard of the profession, both morally and educationally, thus eliminating one cause of these suits. He also advocated the same in regard to the lawyer, thus eliminating the shyster, who is probably indirectly at the bottom of 80 per cent. of these suits. As a material aid, he advocates the adoption by the society of some such plan as has been adopted by New York, Pennsylvania, Wisconsin, and other states, assessing each member, say, $1.00. The county society should investigate each suit, and if, in their opinion, the suit should be defended by the society the latter should take the proper steps to do so.

Rheumatism in Children.

DR. S. L. JEPSON, Wheeling, spoke of advances in our knowledge of joint affections. Several are now differentiated which were formerly classed as rheumatic. He discussed briefly the etiology of acute rheumatism, regarding it as probably of germ origin, but not yet traceable to a particular germ; it is also dependent on heredity, climatic changes, bad hygiene, exposure, etc., as contributing factors in causation. He showed that rheumatism in children differs in many respects from that in the adult. Its slower invasion, lower temperature, absence of perspiration, mildness or absence of joint involvement, more frequent cardiac disease, skin eruptions, nodules on joints and tendons, early and serious anemia, mark the difference. He spoke of the relation of tonsillitis and chorea to rheumatism, and thought that in many cases there may be a common cause. Favors full doses of salicylates early as possible, with alkalies, small blisters or other application to the joint, with fixation; the use of iron early in convalescence; iodid, etc., for a long period in endocarditis, in the hope of preventing chronic valvular disease. He emphasized the importance of absolute rest, both in the acute stage and during convalescence, and if cardiac disease exists, for weeks after all fever has gone. He referred to constriction hyperemia and to the serum treatment.

Translocation of the Testicles.

DR. W. W. GOLDEN, Elkins, reported a case of a young man who lost his entire scrotum by an injury. The testicles and cords were uninjured. By an operation similar to that of herniotomy Golden made a permanent lodging place for the testicles within the pelvis outside of the peritoneum. Months after the operation the patient reported perfect erections and emissions and freedom from all discomfort on account of the new location of the testicles.

The following papers were also read:

"Diabetes Mellitus," by Dr. A. J. Kemper, West Milford; "Treatment of Typhoid Fever," by Dr. C. F. Arnett, Clarksburg; "A Tubercular Sanitarium for West Virginia," by Dr. C. A. MacQueen, Charleston; "Pathology, Symptomatology, Diagnosis and General Treatment of Influenza," by Dr. J. W. Moore, Charleston; "Complication and Sequelæ of Nose, Throat and Ear, Including Sinuses, in Influenza," by Dr. T. W. Moore, Huntington; "Functions of the Internal Secretions," by Dr. John N. Simpson, Morgantown; "Dyspnea and Cyanosis," by Dr. L. D. Wilson, Wheeling; oration in surgery, "Some of the Achievements of Modern Surgery," by Dr. Frank LeMoyne Hupp, Wheeling; "The Diagnosis and Treatment of Acute Suppurative Peritonitis," by Dr. Richard E. Venning, Charles Town; "Treatment of General Septic Peritonitis," by Dr. Robert J. Reed, Wheeling; "A Plea for Liberal Drainage in Abdominal and Pelvic Operations," by Dr. C. R. Ogden, Clarksburg; "Non-surgical Management of Gallstone Disease," by Dr. C. R. Enslow, Huntington; Surgical Treatment of Gallstone Disease," by Dr. J. E. Cannaday, Charleston; "Surgical Treatment of Goiter," by Dr. J. Schwinn, Wheeling; "Clinical Significance of Disease of Thymus," by Dr. J. R. Hersey, Wheeling; "The Medical Profession Losing Faith in the Supposed Virtues of Alcohol," by Dr. A. S. Grimm, St. Marys; "Penalty of Death," by Dr. C. H. Maxwell, Morgantown; "Report of Two Cases of Erythromelalgia," by Dr. Wm. Neill, Charles Town; "Experiences of a Mine Physician," by Dr. T. S. Nutter, Clarksburg; "Fractures," by Dr. A. P. Butt, Albert; "A Case of Sarcoma of the Uterus in a 12-Year-Old Girl," by Dr. John T. Thornton, Wheeling.

DR. C. A. WINGERTER, Wheeling, delivered the public address on the subject, "The Mutual Relations of Physician and People."

A Society of County Secretaries was organized, with Dr. C. A. Wingerter, chairman, and Dr. F. T. Haught, Morgantown, secretary.

Medical Education and State Boards of Registration

COMING EXAMINATIONS.

OHIO State Board of Medical Registration and Examination, Columbus, June 8-10. Secretary, Dr. George H. Matson, State House, Columbus.

MICHIGAN State Board of Registration in Medicine, University Bldg., Ann Arbor, June 9. Secretary, Dr. B. D. Harison, 504 Washington Arcade, Detroit.

SOUTH CAROLINA Homeopathic Medical Examining Board, Columbia, June 9. Secretary, Dr. J. A. Whitman, Beaufort.

KANSAS State Board of Medical Registration and Examination, Kansas City, June 9. Secretary, Dr. D. P. Cook, Clay Center.

SOUTH CAROLINA State Board of Medical Examiners, Columbia, June 9-11. Secretary, Dr. W. M. Lester, Columbia.

MINNESOTA State Board of Medical Examiners, Old Capitol, St. Paul, June 10-12. Secretary, Dr. W. S. Fullerton, 217 American National Bank Bldg., St. Paul.

WYOMING Board of Medical Examiners, State Capitol, Cheyenne, June 10-12. Secretary, Dr. S. B. Miller, Laramie, Wyo.

OKLAHOMA State Board of Health, Oklahoma City, June 16-18. Secretary, Dr. J. C. Mahr, Shawnee.

TEXAS State Board of Medical Examiners, Waco, June 16. Secretary, Dr. G. B. Foscue, Waco.

MARYLAND Homeopathic Board of Medical Examiners, Baltimore, June 16. Secretary, Dr. Joseph S. Garrison, 848 W. North Ave., Baltimore.

NEW JERSEY State Board of Medical Examiners, State House, Trenton, June 16-17. Secretary, Dr. J. W. Bennett, Long Branch.

DELAWARE State Medical Examining Board, Dover, June 16-18, and by the Homeopathic Board at Wilmington on same date. Secretary of the Medical Council, Dr. P. W. Tomlinson, Wilmington.

MARYLAND Board of Medical Examiners, Lehman's Hall, Baltimore, June 16-19. Secretary, Dr. J. McP. Scott, Hagerstown, Md.

VIRGINIA State Medical Examining Board, Richmond, June 23-26. Secretary, Dr. R. S. Martin, Stuart.

PENNSYLVANIA State Medical Examining Boards, June 23-26. The Regular Board meets at Philadelphia and Pittsburg; the Homeopathic at Philadelphia, and the Eclectic at Harrisburg. All applications must be filed with Dr. N. C. Schaeffer, Secrtary of Medical Council, Harrisburg.

NEW YORK State Board of Medical Examiners, Albany, June 23-26. Chief of Examinations Division, Charles F. Wheelock, Albany.

COUNCIL ON MEDICAL EDUCATION OF THE AMERICAN MEDICAL ASSOCIATION.

Fourth Annual Conference, held at Chicago, April 13 1908.
(*Continued from page 1838.*)

Character of the Medical License Examination.

DR. J. W. BENNETT, secretary of the State Board of Medical Examiners of New Jersey, Long Branch.—This is an important subject at the present time, and one that should be fully considered, as many state boards seem to have lost sight of the original reason for their establishment.

The various states all have boards of medical examiners, the majority of which were created since 1890. The creation of these boards of medical examiners was made necessary by the character of the medical colleges which were rapidly springing up throughout the country, most of which were poorly equipped, gave virtually no course of instruction, had no laboratory facilities and graduated the students after two courses of lectures of five months or less each.

Some of these colleges were established solely for the pecuniary advantage of those connected with them, and little regard was paid to the actual teaching of medicine. Finally, the licensing power was placed in the hands of boards of medical examiners, who were to examine all applicants before granting them licenses to practice medicine.

Unfortunately, the multiplicity of states resulted in a great variety of laws. If there was a uniformity of practice acts there would be less difficulty in arranging for reciprocity, although even where the laws are virtually the same, there are wide differences in the enforcement of them.

In many states the boards were given authority also to determine what medical colleges were reputable. For that reason many colleges have been compelled to elevate their stand-

ards, to lengthen their sessions and to give four years of instruction. Others were compelled to quit business.

To my mind the examination of the applicant is of less importance than the examination of the college which he attended. Again, the questions asked should be such as to compel the applicant to use his reasoning powers and not such as could be answered after a short course of cramming from quiz-compends. The examination should be of such character as to bring out what real knowledge the applicant has of the human economy and of the science of medicine rather than what superficial knowledge he can obtain from a mere conning of questions and answers.

My own state, New Jersey, has, I believe, an excellent medical law, and it is the aim of our board to see that it is well administered. We admit no applicant to the licensing examination unless he first presents certificates of good moral character from two physicians or from his county medical society, and a letter from physicians regularly licensed in the state of New Jersey, recommending that a license be granted him. He must have a certificate from the state superintendent of public instruction certifying that his academic qualifications are at least the equivalent of a four-year graded high school course, and must show evidence of attendance of at least four years of seven months each in an approved medical college. He must, with his application, send in a recent photograph of himself, on the reverse side of which must appear his signature and the seal of the notary public, or other officer authorized to take acknowledgments, who certifies that the applicant's signature was written in his presence and that the photograph is a reasonable likeness of the applicant.

No medical college is approved by the New Jersey board unless it requires of every matriculant the preliminary training required by the New Jersey law. It must have a sufficient teaching force, give the required hours of teaching and have proper laboratory and hospital facilities. It must be located in a city sufficiently large to furnish ample clinical facilities, and finally, must adhere strictly to published requirements.

Let me repeat, to my mind the proper supervision and inspection of the medical college is of greater importance than the examination of the graduate by means of a necessarily limited number of questions, the ability to answer which may have been acquired by a system of quizzing and which do not necessarily prove the applicant's actual knowledge of the science of medicine.

Character of the Medical License Examination.

W. T. COUNCILMAN, M.D., Professor of Pathology, Harvard Medical School, Boston.—The state examining board stands between the medical schools and the public. It determines whether a candidate is a sufficiently trained man and whether fit to practice medicine. It should determine the fitness of medical schools and whether the training there is of the best character. It is concerned indirectly with preliminary medical education, because the efficiency of medical schools depends to a great extent on the character and preliminary training of the men whom the schools attempt to train further. It seems to me that the requirements of training preliminary to the study of medicine which are being demanded now everywhere by the medical schools are essentially for the protection of the individual who is entering on the study of medicine. We know that the untrained man who attempts to pass through the best of the modern medical schools is very seriously handicapped. Even among the A.B. men who come to us at Harvard, those who have not had a training in the methods of science are so seriously handicapped that they sometimes fail. The examining board determines the fitness of the candidate by an examination. Let us review briefly the demands of modern medicine and see how adequate the examinations now given are for this purpose.

ADVANCES IN THIRTY YEARS.

In the last thirty years the advance in medical knowledge and medical art has been phenomenal. Thirty years seems to be a convenient period in marking the change between the old medicine and the new. Thirty years ago I received a diploma which enabled me to offer my professional services to the public after hearing a five months' course of medical lectures twice repeated. Thirty years ago there was given the first definite demonstration that a micro-organism was the cause of an infectious disease. Bacteriology as a definite branch of medical science may be said to have begun at this period. This advance has been due mainly to the recognition of the importance of the methods of science in medicine. Medicine has now advanced far on the path followed by the sciences, and the art of medicine is now based on knowledge, which in many cases enables us to predict, instead of on conjecture. This advance in medicine has been followed all over the world, and more strikingly in America than elsewhere, by an advance in medical teaching. The change in the character of the medical schools has been due largely to the work of the examining boards, but it would be wrong to say that this pressure exerted from without has been the chief agency.

COLLEGES SHOULD HAVE MUCH CREDIT FOR ADVANCES.

I firmly believe that the development has been due more to the forces acting from within the school than to pressure from without, and it should make us proud that the medical schools throughout the land have responded so nobly to the advance in medicine, and have striven to raise the standard in education in spite of the fact that in many cases this has involved very serious pecuniary loss to the schools. Not only has the sum of knowledge which is to be imparted to the students become much greater, but it has been recognized that the students must know the methods by which knowledge is acquired and must be exercised in the use of these methods. To this end laboratories have been erected, and laboratory instruction has been so advanced that now it may be said that except in a very few schools the laboratory instruction, formerly so far behind, is now ahead of the clinical teaching. With this there has also come a closer union between the clinic and the laboratory. It is recognized that the clinical teaching must be of essentially the same character as the laboratory teaching. In both the clinic and the laboratory the student must acquire and must constantly practice the methods of acquiring knowledge.

MORE METHODS OF ACQUIRING KNOWLEDGE.

As one looks over the situation the most striking thing in medicine and in surgery is the multiplication of these methods and the reliance on them. There is no longer conjecture as to whether the patient has a certain infectious disease, or whether there is a certain condition of the blood, or whether digestion is taking place in a proper manner, but the problem thus presented by the sick individual can be definitely solved. That the clinics in the medical schools have not advanced in medical teaching in equal ratio with the laboratories is due not to the failure of the recognition of the essentials of teaching, but to the peculiarities of the situation in that the medical schools, as a rule, have no control over the hospital clinics. They can not place men who are especially fitted for the work in clinical positions, but must accept men who hold these positions whether or no these men are capable. I think that the assertion which I have made of the importance of methods in medical practice and that the power to relieve in medicine must be founded on the knowledge of the processes of disease which are obtained by the skilful use of our senses and by methods which represent an extension of the senses will be accepted by everyone. It is this reliance on knowledge which places medicine in the domain of science.

TESTS OF EXAMINING BOARDS.

How is this knowledge tested by the Examining Boards? I have just looked through the character of the examinations given by the examining boards, and the rules which govern the examination. The multiplicity of the rules to avoid cheating on the part of the candidates and to avoid the exercise of favoritism on the part of the examining boards themselves would lead one to take a very pessimistic view of human nature, and a view which it seems to me is hardly justifiable, but on that point I am not qualified to speak. The examinations themselves are not adequate. They are adequate prob-

ably as far as purely written examinations can be made so. The questions as a rule are well selected and the proper answering of the questions demands the possession of a good deal of information on the part of the candidate.

LIMITATIONS OF THE WRITTEN EXAMINATION.

It is very difficult, however, to frame questions so that the answers will show not only information but knowledge on the part of the candidate. I find, on giving the questions for the written part of my examination year after year, that there are a comparatively small number of questions which can be asked. Certain branches of a subject impress one as being of greater importance and the tendency is, in succeeding years, to give certainly some questions on these branches. There is further a great difficulty in correctly estimating the value of an answer. After going over a number of examination books one acquires a rather vague idea as to the correct answer of almost any question. The information which a student must possess to pass a written examination can be easily acquired. I believe that it could be possible by the study of quiz compends made from the questions given by the state examining boards for a candidate in the course of six months of directed study to pass practically any examination of this character. The success of certain medical schools in which the instruction is only in the framing of suitable answers to certain questions has demonstrated this.

WHAT THE EXAMINATION SHOULD REVEAL.

The examination should reveal very much more than information. It should reveal that the student is capable of acquiring knowledge by methods and that he has the power of using the knowledge which he has so acquired. To this end the main part of the examination should be made practical. I know that at first consideration of this certain difficulties in the way of a practical examination of the candidates will present themselves. In the first place it will be seen that the examinations must cover a greater period of time. Not a day, but possibly a week must be devoted to the examination. This is the first difficulty. The second difficulty is that the examination can not be so impersonal as the written examination. I believe, however, that this is an advantage instead of a disadvantage. I can not think so badly of human nature as to believe that any considerable degree of favoritism towards a certain candidate would be exerted on the part of the examiners.

PRACTICAL METHODS SIMPLE.

It is perfectly simple to give a practical examination in anatomy, physiology, bacteriology, pathology, medical chemistry, and in clinical laboratory methods. In any city where examinations are held there are laboratories which at proper times would be gladly placed at the service of the medical examiners. It is a very easy matter to have a student show what he really knows in anatomy by having him make dissections or have him describe dissections and preparations which are given him. It is perfectly possible to have him show that he is capable of making simple demonstrations in physiology. In pathology, bacteriology, in pharmacology, and in medical chemistry the practical examination can be easily arranged. In pathology the candidate could be required to recognize the lesions in the organs and the microscopical changes to which the gross lesions are due. I do not think that a man should be allowed to practice medicine unless he can demonstrate the tubercle bacillus in a suspected fluid, and make the Widal reaction for typhoid fever. He should demonstrate that he is capable of making a blood examination, of counting the corpuscles, differentiating them, etc.

THE PRACTICAL CLINICAL EXAMINATION.

The practical clinical examination could also be made without difficulty. In every city there are sufficient ambulant patients connected with the dispensaries who could be used for the physical examination of the thorax, heart, abdomen, etc. In certain branches such as obstetrics and gynecology it would hardly be possible to have a practical examination, except possibly on the manikin for obstetrics. With the inception of the practical examination methods of conducting it in the best way will undoubtedly be found. The examination should not involve complicated or unusual methods. It should in short be no more than we are warranted in believing the student to be proficient in from the catalogues of the various schools. All school catalogues state with more or less definiteness their ability to give and that they do give the training which such an examination demands.

BENEFITS OF THE PRACTICAL EXAMINATION.

In addition to the better protection of the public and the elimination of unfit men the practical examination would force medical schools to the use of practical and laboratory methods of teaching in the clinic. It would moreover do away with the troubles which arise from the presence of the various sects in medicine. I believe that any man who is skilled in the methods of medical science will know the importance of knowledge derived from such methods; that he will base his procedures on the knowledge of disease which he acquires from the investigation of the patient, and that he is a man to be trusted no matter what he conceives it to his advantage to call himself. It would probably not be possible or desirable to have the practical examination the sole test, but it should count for at least 75 per cent.

PRACTICAL EXAMINATION NOT AN EXPERIMENT.

There is nothing new in the idea. It is this form of examination essentially to which the candidate for license to practice is subjected in England and on the continent and no difficulties in the way of carrying it out have been found there. The first state which substitutes this character of examination for the one now in vogue, no matter what its rules as to the stated requirements of the candidate, will take the first place, and will do most in the promotion of medical knowledge and medical education.

Character of the Medical License Examination.

F. F. WESBROOK, M.D., Dean of the College of Medicine and Surgery in the University of Minnesota, Minneapolis.—I was glad to know that the character of the state medical license examination was to receive discussion to-day because I had the feeling that much could be done in the way of improving present methods and am optimistic of the success of any efforts made by this Council in that direction.

THIS THE DAY OF LABORATORY METHODS.

Referring to the "laboratory method" President Eliot stated that about ninety per cent. of the teaching done at the present day in University life is by the laboratory method, which, of course, includes hospital teaching. This indicates that didactic or lecture methods are things of the past and leads one to ask whether the methods of examination usually employed by state boards are as up-to-date as the teaching methods employed by the colleges.

The first speaker stated that the examination of credentials is one of the most important functions of the various examining boards. When teaching throughout the United States is brought up to the standard suggested by this Council and yearly reports are published showing the standard in each institution, the work of the state boards in regard to credentials will be much lightened.

HIGHER PRELIMINARY CREDENTIALS.

If the function of examining boards is to include the judging of higher preliminary education, it might be wise for each board to arrange for an advisory committee to consist of men not engaged in the teaching or practice of medicine, but who are authorities in general education. If it is wise to insist upon two years of collegiate training before entry into the study of medicine, then it is wise, in my opinion, that the judgment on that premedical work be given by men not connected with any medical institution.

Again in judging medical qualifications methods of state board examinations will doubtless need improving just as carefully as methods of teaching. Doubtless, all of us who are teachers, realize the truth of what Professor Councilman has said, namely, that it is difficult to find out what a man knows by the method of written examinations. I take it that what is desired by an examining board is not to find out how little but how much a man knows, and the examinations are

not so much for the protection of the profession as for the protection of the public.

PRACTICAL LICENSE EXAMINATIONS.

If one has a supply of microscopes and materials for macroscopic and microscopic examination, as pus, specimens of tumors, dissections, bacteriologic cultures, chemical reactions in test tubes, and other apparatus and materials used in instruction in the primary branches, it will be easy to determine whether the applicant has been coached by the "question and answer" method or has actually been trained in practical work. It will be easy to differentiate quickly between the man who really knows and the man who has been merely told or who has read. This same principle could also be applied to clinical medicine. If the applicant were required to examine a patient he would get an opportunity to show his knowledge of methods, his powers of observation and his ability to draw logical conclusions.

These are suggestions for the future and are not made to criticise state boards, for in many localities these boards have been and are still the leaders in furthering medical education. This is especially the case in Minnesota where the Board was the first to require a three-year's graded course in medicine and at a time, too, when such a course was provided by only one institution in the country.

COMPETENT EXAMINERS NEEDED.

Examiners are often at a disadvantage, through the fact that most of them have had no initial training as professional examiners and yet they are called upon to determine a man's qualifications to practice medicine. Many by service on the Board become skilled professional examiners, but in Minnesota the difficulty is that they can not hold office for more than six years when they must be replaced by others. In order to become competent, examiners must be trained in teaching institutions where they have to examine students from time to time, or they must receive their training by prolonged experience on examining boards, or they must be born such, as I suppose may be the case. The provision which obtains in many states that no member of an examining board can have connection with any of the teaching institutions makes it difficult to obtain competent professional examiners.

EXAMINERS SHOULD BE BETTER PAID.

In Minnesota, the expenses of the board including the secretary's salary, must be paid out of the fees taken in by the board. These fees amount to $10 for each examination, half being returned if the applicant does not pass the examination. Under such circumstances, there is not sufficient income to carry the work forward in a way satisfactory to the board, since for the best work more time is necessary than they can afford to give. We can not expect to provide a severe and prolonged examination without paying the examiners. These matters are difficulties which stand in the way of the introduction of supplemental practical and oral examinations and the securing and retaining of competent examiners. Oral examinations should be used in combination with practical and written, since many people do not seem to be able to write readily. Evidence is desired not of literary ability, but of the applicant's practical knowledge of medicine; at the same time the doctorate degree, the highest which a university can give, should be granted only to the candidate who is able to express himself in writing as well as orally.

THREE EXAMINATIONS SUGGESTED.

For the purpose of discussion I would suggest that the examinations for license be divided into three parts:

1. That which determines the preliminary qualifications. Such examinations should be conducted not by medical men, but by professional educators.

2. An examination in the basis branches of medicine, such as physiology, physiological chemistry, histology, human anatomy, pathology, bacteriology and pharmacology. There has been expressed to-day some doubt about the propriety of including materia medica and pharmacology in state board examinations, although it does seem rather absurd to eliminate in our state examinations the "do something" for the patient, after we have spent so much time in finding out what is the matter with him.

3. The third portion of the examination should cover the actual work in medicine, surgery, obstetrics and the specialties. In this examination the candidate should be required to demonstrate his ability to observe and to make the necessary deductions. It is very important to secure men who are capable of logical thinking, to turn out which the better grade of medical colleges are being run. It is important in order to secure better trained men to enter the practice of medicine as well as to encourage better methods of teaching medicine.

The three portions of the examination might be taken separately or at one time by proper arrangements of the dates and subjects of examination. The examination of the premedical might not be necessary if there was a satisfactory arrangement in the state for determining such qualifications. The examination in the basic branches of medicine might be taken at the end of the first two years' instruction in medicine, or with the clinical part of the examination.

FAIR QUESTIONS AND FAIR RATING.

I often have much difficulty in arriving at an estimate of what students know, although we think we have good methods in our own department in the college where five or six of us examine in different parts of the subject. After each examiner has independently arrived at his own conclusions, a departmental meeting is called, each student is discussed and his general average fixed. Again after each has formulated his questions, we "try it on the dog," that is, the other members of the staff are asked to answer the question under consideration. Some one is very likely to say, "Do you mean so and so as the reply to that question," and when the examiner says, "No," he is asked, "Then why do you put it in that way?" We thus find out whether the question as asked may be answered in different ways. If one is anxious to know how many different constructions may be put on a question, some idea may be obtained by giving it to a class of fifty or one hundred students. The multitudinous viewpoints presented are amazing at times and shows how uncertain may be the percentages based on written examinations. Therefore, if fairness is to be exercised, the questions must be very carefully put and the grade limits for passing or failure rather widely separated. A much more accurate estimate can be had of the candidate by supplementing the written examinations with oral questions and the giving of an opportunity to show what is available in the way of practical experience and the knowledge which has been obtained as to technical methods.

The same principle might be adopted by examining boards in arriving at a final estimate of the candidate for license. After the examiner in any individual subject has arrived at a definite conclusion regarding the candidate, he should meet with the other examiners. At this conference of the examiners, each individual candidate could be discussed and his general average recorded which would avoid the danger of drawing the lines too hard and fast. This plan would result, not in too much leniency, but in more fairness to the student. It could easily be seen, in such a conference, whether a candidate was on the border line in all subjects or not.

As we approach a uniform standard in all states a more satisfactory system of reciprocity will doubtless result and boards will not have to examine those who have been practicing a long time and who may wish to move for good reasons to another state. Under the system of examinations which I have just suggested, the man fresh from college could be held closely on all three parts of the examination. He could be thoroughly examined in the matter of the basic medical subjects as well as on laboratory technique. On the other hand, the man who has graduated several years before and who has been in the practice of medicine, should be tested chiefly in regard to the handling and examination of patients.

Without an extension and the bringing up-to-date of the present methods of examination, it will be difficult to get any foot rule which will measure the candidate with justice and at the same time afford the needed protection to the public.

(To be continued.)

Medicolegal

Violation of Medical Practice Act by Agent of "Patent Medicine" Company.

The Supreme Court of New Mexico says that the information in the case of Territory vs. Lotspeich charged that, on a certain date, the defendant did unlawfully attempt to practice medicine without first complying with the provisions of an act of the Legislative Assembly of the territory of New Mexico entitled "An act to regulate the practice of medicine in New Mexico," which became a law on the 12th day of March, 1903, and without being the holder of a certificate entitling him to practice medicine in the said territory of New Mexico, and in so practicing medicine and attempting to practice medicine the said C. F. Lotspeich did then and there unlawfully open an office for such purpose, and announce to the public a desire and willingness and readiness to treat the sick and afflicted and to investigate and diagnose the physical ailment and disease known as tuberculosis and consumption, and to suggest, recommend, prescribe and direct for the use of persons certain drugs, medicines and appliances for the cure, relief and palliation of said ailment and disease, with the intent of receiving compensation therefor from the maker and owner of a certain drug, medicine and ointment called "Pulmoline," of whom the said C. F. Lotspeich was then and there an agent and employé, and whose name, on information and belief, was alleged to be the Pulmoline Company.

Was the court below right in holding that this information, when measured by the act of 1903, stated no offense? That act subjects to punishment any person who shall practice or attempt to practice medicine without first complying with its provisions, and without being the holder of a certificate from the Territorial Board of Health entitling him to practice. There was no contention that the information failed to state a lack of this certificate, but the point urged and sustained by the court below was that the information failed to allege facts showing that Lotspeich was engaged in the practice of medicine within the meaning of the act.

The Supreme Court says that it is of opinion that under this act, to constitute practice of medicine, it is only necessary to do some one of the three following things: Either, first, to open an office for the practice of medicine; or, second, to announce to the public or to any individual in any way a desire or willingness or readiness to treat the sick or afflicted, or investigate or diagnose, or offer to investigate or diagnose, any physical or medical ailment or disease of any person; or, third, to suggest, recommend, prescribe or direct for the use of any person any drug, medicine, appliance or other agency, whether material or not material, for the cure, relief or palliation of any ailment or disease of the mind or body, or for the cure or relief of any wound, fracture or bodily injury or deformity, after having received, or with intent of receiving therefor, directly or indirectly, any bonus, gift or compensation.

Under the first two subdivisions the essence of the act is the public announcement of a general readiness and willingness to treat the sick, in the first subdivision the announcement being made by the act of opening an office, in the second by advertisement or other public statement. Under neither of them is any actual treatment of a patient necessary, and therefore the question of compensation is immaterial to a prosecution thereunder.

The third subdivision deals with the actual treatment of or prescription for the sick, and provides that such attention, even to only one person, and even without previous opening of an office or advertisement or announcement, shall constitute the practice of medicine, provided it be for pay, either present or prospective. Under this last clause the court is of opinion that it is immaterial from whom compensation was received, or from whom it was intended that it should be received.

By the terms of this act an unlicensed person has no more right to treat patients on a general undertaking from another, as, for instance, the city or some philanthropic person, that all such persons will be paid for by such city or philanthropist, than he has to treat such persons on the latter's personal payment or undertaking to pay. It must, however, be compensation for services rendered the patient, not for services rendered the third party paying for the same and to which the treatment of the person is purely an incident.

On the argument in the Supreme Court, and apparently in the court below, the sufficiency of the information under the third subdivision was the principal matter of controversy, and the particular criticism was that the information failed to allege payment or expectation of payment from the party treated. The Supreme Court concurs with the court below in holding the information as to the third subdivision of the statute insufficient, not, however, for the reason urged (for, as we have seen, it is immaterial from whom the compensation comes), but because there was no allegation of the treatment of any specified person, or any person at all, which is a necessary element under this branch of the statute. The Supreme Court is of opinion, however, that the information was sufficient under the first two subdivisions in that it alleged both the opening of an office for the practice of medicine and an announcement to the public of a desire, willingness and readiness to treat the sick.

The Supreme Court holds, therefore, that the trial court erred in holding the information generally insufficient, and in discharging the defendant thereon.

Must be Treated as Partners.

The Supreme Court of North Carolina says that it appeared in the record in the case of Manning and another vs. Interstate Telephone and Telegraph Company, that the fees which the defendant company was authorized to charge to copartnerships for the use of one phone was $3.50 per month. It also appeared that the plaintiffs were copartners in "minor surgery" (whatever that may be), and occupied connecting offices used in the business, and as such used one phone in common. The fact that they had private practice not embraced by their copartnership did not make them any the less copartners, and the court thinks that as such they came within the schedule of the defendant's rates, and must be charged as copartners.

Who May Testify to Physical Conditions.

The Supreme Court of Nebraska holds, in the case of Young vs. Beveridge, that the ability of a person to perform manual labor is not a matter so exclusively within the domain of medical science that witnesses, who were acquainted with him, and had opportunity to observe his ability, can not testify with reference thereto. The rule is said to be that the actual condition of a person's health must be proven by expert witnesses, but that the apparent physical condition of any person where that fact is an issue may be established by other witnesses who have had occasion to observe such condition.

Non-Experts Not Permitted to Give Opinions as to Sanity.

The Supreme Judicial Court of Massachusetts says, in the will case of Gorham vs. Moor, that it was early established as the law of that commonwealth that witnesses not experts are not permitted to give their opinion in regard to the sanity of one whose mental condition is drawn in question. This court, although repeatedly asked, has always refused to change this rule, and it is not now open to discussion. The difficulty in its application lies in keeping distinct the line between statements of facts, from which the jury can draw an inference as to the mental capacity of the person under inquiry, and an expression of opinion as to what the facts show. Many statements of fact involve to a greater or less extent an exercise of judgment, and they generally require observation and attention. Frequently a deduction from certain facts must be made in order to determine the fact directly in issue. To determine whether one is intoxicated or not, when nicely analyzed, demands an observation of certain facts or conditions, and an inference as to the cause of these manifestations. But the result is not a matter of opinion; it is a statement of fact. And in this case the court does not think questions were open to objection where several witnesses were asked, in substance, the question whether they ever saw the testatrix do, or heard her say anything that indicated anything singular or unusual respecting her mental condition.

Current Medical Literature

Boston Medical and Surgical Journal.

May 21.

1 *Social Legislation in Germany and Its Relation to the Practice of Medicine. F. Mueller.
2 *Common Disorders Frequently Misinterpreted. G. L. Walton. Boston.
3 *Medical Notes on Northern Alaska. G. P. Howe, Lawrence, Mass.
4 Varicose Veins of the Papilla of the Kidney; Cause of Persistent Hematuria. W. F. Whitney, Boston.

1. Social Legislation in Germany.—Mueller describes in great detail the social legislation in Germany, initiated by Emperor William I in 1881. He points out the necessity for bearing in mind before instigating such legislation that a benefit once given to the people can never be taken back. The German legislation comprises these branches: (1) Insurance against illness; (2) insurance against old age and invalidism; (3) insurance for accidents. All branches are obligatory, and as they all comprise large classes of the population they are relatively cheap. Insurance against illness includes every man or woman working as an employé or servant at a salary less than $750 a year. The premium varies in proportion with the salary from 3 to 30 cents a week, and is paid, two-thirds by the employé, and one-third by the employer. The benefits assured are free medical attendance, free medicine and certain medical supplies, and a sum of money during incapacity for work. A female member who is confined receives a grant of money for four weeks to enable her to take proper care of herself and her child during the initial period of its life. Mueller describes the various struggles for adjustment of method with regard to physicians' attendance. At present the patient is allowed the choice of any physician, the assurance society paying the fee according to a fixed scale. The insurance against invalidism and old age includes every paid workman or workwoman whose income is less than $500 a year. This carries an annuity on disablement, from protracted illness, or at 70 years of age. The premiums are paid, half by the employer, and half by the employé. The government makes a small grant toward each annuity. (3) The insurance against accident includes all workers at dangerous trades. The law is formed on the principle that the employer is responsible for every accident which occurs in his establishment, without regard to whether the employé is at fault or not, so that the entire premium is paid by the employer. The three social laws are found not only to have brought help to already existing illness and injury, but to have prevented illness and misfortune.

2. Misinterpreted Disorders.—Walton discusses facial neuralgia in relation to various conditions, particularly dental irritation and facial spasm, or tic; destruction to movement, paralysis, occupation neurosis—including pain as well as cramp—in relation to neuritis; and disorders of the lower extremity, especially sciatica and flatfoot, and their symptoms. The trouble in diagnosis lies not usually in lack of familiarity with the fact, for instance, that neuralgia may come from the teeth or pain in the knee from flatfoot, etc., but in lack of readiness in the application of the knowledge to the particular case.

3. Northern Alaska.—Howe describes the dwellings, food, clothing, and diseases of the Eskimo of Alaska. Tuberculosis is a plague, and was present when white men first came. Venereal diseases have practically disappeared, only a few tertiary cases remaining. Imaginary diseases are common and are attributed to diabolic possession. For snow blindness, the natives use a wooden eye shade blackened on the inside and with a narrow slit to look through. It is very efficient. Crude amputation is practiced for frozen hands and feet. Liability to sepsis is slight. The Eskimo appears free from all kinds of tumor. Howe describes a disease called "mollycolly" affecting dogs. He is sure that, notwithstanding its resemblance to rabies, it is not identical therewith. Records taken by him of the hemoglobin of six white men from September to March, while the sun is away, show that the hemoglobin is unaffected by the absence of sunlight. In frost bites, he cautions against rubbing with snow. Snow or ice may be used to allay thirst without the ill effects attributed to them, if the ice or snow is melted in the warm hand before being put into the mouth.

Medical Record, New York.

May 28.

5 *Clinical Study of a Case of Brain Tumor; Operation; Complete Recovery. W. W. Graves, St. Louis.
6 *Pneumothorax and Posture; Importance of Abdominal Posture in Operations on the Pleura and Lungs. C. A. Elsberg, New York.
7 Thirty-one Cases of Congenital Dislocation of the Hip Joint Reduced by Manipulation. E. G. Abbott, Portland, Me.
8 *Sources of Error in Gastric Diagnosis. C. S. Fischer, New York.
9 Prevention and Treatment of Cystitis. P. Pilcher, Brooklyn, N. Y.

5. Brain Tumor.—Graves says that the surgeon and the neurologist are indispensable to each other, at present, in surgery of the nervous system. The ideal would be a surgeon who is at the same time a neurologist. He gives an elaborate study of a case of brain tumor in which the joint labor of the surgeon and the neurologist resulted, not only in relief of distressing symptoms, but in complete restoration of function. The case was that of a woman, aged 50, who for some time had had motor weakness of the right extremities and a peculiar speech defect. While under observation a convulsion began in the right hand, involving the arm, face, and leg, lasting for three hours, and causing complete loss of consciousness. Consciousness returned early, but there was complete paralysis of the right side, with inability to speak, though she was cognizant of her surroundings and understood what was said to her. Graves goes at great detail into the examination of the patient, and describes the process of reasoning whereby a diagnosis of exhaustive paralysis following a Jacksonian attack was arrived at by exclusion. The preceding symptoms, together with the seizure and its consequences, led to the further diagnosis of an essential lesion involving the left cerebrum and having its location in the Rolandic area; involving particularly the ascending frontal convolution and, to a less extent, the ascending parietal convolution. As to its nature, on the solution of which depended the determination as to the aim and character at efforts for relief, all forms of growth were excluded, except such as those which, while constantly irritative and variable, could nevertheless progress for three years without entirely destroying any part of the Rolandic area. These comprised only a cavernous angioma and an arachnoidal cyst. The patient was operated on by Dr. Witherspoon in the left fronto-parietal region, and a clear, thin-walled cyst, of the dimensions and configuration of a small hen's egg was exposed immediately under the bone flap. The upper portion of the cyst was removed. Surgically, the subsequent course was uneventful; but the postoperative phenomena were remarkable, consisting of a succession of Jacksonian attacks, lasting for several hours. Complete aphasia set in forty-eight hours after operation and the woman could not understand what was said. Communication was entirely by pantomine. This condition was found to be due to oozing under the flap, which was removed with entire disappearance of aphasic symptoms. The patient, when seen twelve months after the operation, was well-nourished, contented and happy; gait was normal, every vestige of former hemiplegia was gone. Synergic energy on the right side was perfect. The case is reported to show the possibilities of neurologic diagnosis and surgery, in opposition to the prevailing pessimism regarding surgery of the nervous system.

6. Pneumothorax in Posture.—Elsberg reports experiments on dogs which led him to the conclusion that pneumothorax is better borne when the animal is on its belly than in any other posture; also when it is deeply under an anesthetic. These results have been applied at Mount Sinai Hospital, so that all patients on whom operations requiring the opening of the pleura were performed, were operated on while lying flat on the abdomen. These patients included a large number with empyema, 2 with abscess of the liver, 3 with subphrenic abscess, and 1 with a bronchiectatic cavity in the left lung. The patients in whom a normal pleura had to be opened showed

unusually few untoward symptoms when the opening was made and air was allowed to enter the pleural cavity. In the patients in whom an operation for empyema was done, it was noted that with only one exception the coughing and interference with breathing regularly observed when the opening in the pleura is made for this affection, were entirely absent. Elsberg believes that those who try this simple procedure will soon appreciate its manifest advantages.

8. **Gastric Diagnosis.**—Fischer points out that the usual classic signs and symptoms and the most approved diagnostic methods given in books will fail us in a goodly number of cases. In carcinoma of the stomach loss of body weight may be absent; it depends on the involvement of the pylorus. The craving for food may be normal. On the other hand, a sudden disinclination to take a particular variety of food, notwithstanding that it causes no distress, may appear early in the disease. Loss of strength is of greater diagnostic importance than loss of weight; often, it is not so much general weakness as disinclination to activity. A parallel condition may occur in the mind. Most sources of error in gastric diagnosis involve questions of the pylorus. Tenderness in this region is a doubtful sign of malignancy. Pyloric tumors occasionally induce great muscular irritability of the esophagus. Slowness of growth is not always an evidence of benignity. When infiltration has resolved the pylorus into a rigid tube with a patent lumen, confusion may arise, for there may be no dilatation and no retention of food. Among remoter influences which may affect the pylorus and direct attention to it as the seat of some organic lesion are sudden atmospheric changes, sudden mental irritation, and hysteria. Distention of the hepatic flexure of the colon and a reflex from the slightly loose right kidney are also deceiving elements. The author discusses atony and chronic catarrh of the stomach.

New York Medical Journal.

May 23.

10 *The Sigmoidal Factor in Pelvic Diseases. J. R. Pennington, Chicago.
11 *Restoration of the Normal Balance of the Foot. E. G. Abbott and H. A. Pingree, Portland, Me.
12 Mucomembranous Enterocolitis, Its Causes and Mechanism. H. Nepper, Paris.
13 Plea for Systematic Use of Bronchoscopy in Routine Work, with Description of a Modified Bronchoscope. W. Freudenthal, New York.
14 Malnutrition. M. Korshet, Baltimore.
15 *Rôle of the Sphenopalatine (or Meckle's) Ganglion in Nasal Headaches. G. Sluder, St. Louis.
16 Middle-Ear Deafness. W. S. Bryant, New York.
17 *New Method of Anatomy Study. F. Griffith, Rome, Italy.

10. **The Sigmoid and Pelvic Diseases.**—Pennington believes that an adherent, extra long, overfilled or loaded sigmoid, especially if it has a long mesentery, is a potent factor in producing pelvic diseases; hence in many cases of utero-ovarian diseases, treatment should be directed first to the sigmoid and rectum. Over 75 per cent. of women whom he has examined for sigmoid or rectal trouble have had more or less uterine disorder. In young girls with leucorrhea, etc., frequently he has found the rectum and sigmoid more or less filled with feces an hour or two after defecation. Relief of the uterine symptoms frequently accompanies relief of the sigmoid trouble. There is a reciprocal relation between the condition of the sigmoid and that of the uterus, so that if the former is in a pathologic or anomalous condition, it has a detrimental effect on the uterus. Adhesions of the sigmoid are very common. These and a loaded organ interfere with the mobility of the uterus. The symptoms complained of are usually ascribed primarily not to the sigmoid region, but to the uterus and its adnexa. The physician often overlooks the bowel factor in such symptoms, because he forgets the anatomic and physiologic relations and rarely examines the rectum and sigmoid in seemingly utero-ovarian cases. Pennington reports cases showing the relation between bowel trouble and uterine symptoms, and urges early diagnosis and treatment. There is probably a period in many of these cases when they could be easily and successfully managed without operation. If not dealt with then, surgical intervention is indicated, to break up adhesions, straighten kinks, especially that so frequently occurring at the rectosigmoidal junction, and shorten or hitch up the mesentery; or sigmoidopexy, "short circuiting" the bowel current by lateral anastomosis, and, if need be, resection of the sigmoid, should be done, in the hope of preserving the genitalia and womanhood. Should all these measures fail, then, as a *dernier ressort*, hysterectomy, salpingectomy, etc., may have to be performed.

11. **Normal Balance of the Foot.**—Abbott and Pingree discuss in their second article the application to flat-foot of the principles laid down in their first (*N. Y. Med. Jour.*, May 9, 1908; abstracted in THE JOURNAL, May 23, p. 1754). A plate constructed to lift the arch and keep it in position only results in atrophy of the soft tissues and increased weakness. A proper plate should be so constructed as to be simply an agent to bring the foot to a normal condition; it must be of such a shape that it makes little or no pressure when the foot is in activity, acting as a reminder to the patient to hold the arch in proper position when the foot is passive, but supporting it when he is no longer able to do so. It should resemble in shape the section of a dome, with the exception of the slight extension which controls the scaphoid bone. The authors describe the various plates in use, and discuss the qualities and detail the method of making a plate which shall fulfil the requirements laid down by them.

15. **The Sphenopalatine Ganglion and Nasal Headache.**—Sluder considers the secondary involvement of the sphenopalatine ganglion in nasal inflammation to be the probable cause of nasal headaches. He describes its anatomic relations. Acting on this theory, he tried in several cases the effect of anesthetizing the ganglion with a pledget of cotton, moistened with one drop of 20 per cent. cocain solution, and applied by an applicator just posteriorly to the posterior tip of the middle turbinate. In many cases it relieved all the symptoms instantly. Silver, 2 per cent. solution, or formaldehyd, 0.5 per cent., applied to the same region, also gave either cure or relief.

17. **Anatomy Study.**—Griffith describes a synthetic method of studying anatomy, as a complement to the analytic method of dissection. The necessary materials are a skeleton and modelling material; of the latter he describes several forms, plastilina, ordinary modelling clay, Norwegian "classical clay." He then describes the method of reconstructing the head, the thorax, the abdomen, and the upper and lower extremities.

Journal of Experimental Medicine, New York.

May.

18 *So-Called Rhythms of Growth Energy in Mouse Cancer. G. N. Calkins, New York.
19 *Pathology of Myasthenia Gravis; Report of Case with Unusual Form of Thymic Tumor. F. S. Mandlebaum and H. L. Celler, New York.
20 *Effect of Pilocarpin on the Output of Lymphocytes through the Thoracic Duct. F. P. Rous, Ann Arbor, Mich.
21 *Enzymes of Fibrin. B. I. Barker, New York.
22 *Bone Formation in Sclerotic Arteries. L. Buerger and A. Oppenheimer, New York.
23 *Anglomata in Valves of Heart of a New-Born Child. J. L. Nichols, Baltimore.
24 *General Conditions Affecting Resuscitation and the Resuscitation of the Blood and the Heart. F. H. Pike, C. C. Guthrie and G. N. Stewart.
25 *Effect of Injected Leucocytes on the Development of a Tuberculous Lesion. E. L. Opie, New York.

18. **Growth Energy in Mouse Cancer.**—From a study of the course of events in mice inoculated with transplantable cancer, Calkins concludes that cancer cells possess the power of indefinitely continued division, as well as the property that he calls infectivity. The power of infectivity of cancer cells is said to be subject to a more or less regular rhythm. It is distinct from rhythms of growth energy, which probably occur in the individual animal inoculated. The cause of the infectivity lies within the cell or is constantly associated with it. While the cells of many tumors, such as benign ones, have the power of division they have no infectivity. It appears necessary to assume, either that the cancer cells themselves are the equivalent of parasites, or else that parasites are contained within them or associated with them. Calkins is inclined to the belief that some micro-organism, perhaps ultramicroscopic, may underlie the infectivity of cancer cells and provide the stimulus for their continued proliferation. He thinks that possibly the spirochetes found in mice cancer may have intracellular stages in their life history, which are

too minute to be seen, and be the cause of the rhythms of infectivity.

19. **Myasthenia Gravis.**—Mandlebaum and Celler describe the changes in a case of myasthenia gravis in a man of 52. In addition to the usual degenerative changes in the muscles and lymphocytic infiltrations there was present a tumor of the thymus, of the type of a perilymphatic endothelioma. On account of the percentage (20) of cases in which tumors of the thymus have been observed in this disease, the authors believe that such tumors may play a causative rôle in a certain proportion of cases. The disease is regarded as the result of a toxemia of unknown cause, the toxic substance affecting not only the muscular system, but other tissues as well, as is shown by the widespread lymphocytic infiltrations. In this particular case there were lymphocytic infiltrations in the medulla. The lymphoid cells are traced to the perivascular lymph spaces.

20. **Pilocarpin and the Lymphocyte Output.**—Rous finds that intravenous injections of pilocarpin nitrate in the dog causes a rapid increase in the output of lymphocytes through the thoracic duct, and it is believed that the lymphocytosis of the blood is the result of this increased output. While the real cause of the quickened lymph flow is not clear, it is believed that it may result from contraction of smooth muscles. The rôle claimed for mechanical factors in the production of rapidly appearing lymphocytosis receives support from these observations.

21. **Enzymes of Fibrin.**—Fibrin contains an enzyme, active in neutral and slightly more so in alkaline media, in which respect it resembles the enzyme found in polynuclear phagocytes. The enzyme acts, not only on fibrin, but also on foreign proteid. Fibrin, furthermore, contains a proteolytic enzyme, active in weak acid media and probably identical with the similar enzyme in the large mononuclear cells of inflammatory exudates.

22. **Bone Formation.**—From their study of bone formation in sclerotic arteries, Buerger and Oppenheimer hold that, as a result of some stimulus, perhaps an organizing thrombus or vascularization in the course of intimal obliteration, or owing to the presence in the diseased media of lime salts, a penetration of the media with phosphates takes place. There ensues then proliferation of young connective tissue, which at the points of contact with the lime produces the ground substance of bone.

23. **Cardiac Angiomata in a Child.**—Nichols describes minute angiomata strung along the upper surfaces of the tricuspid and mitral valves in a newborn child. The blood-containing globules were lined with a single endothelial layer. There were three similar, but larger, growths under the epithelium of the urinary bladder. Nichols believes that these angiomata differ only in situation from the familiar angiomata of the lip and elsewhere. Angiomas in the heart are rare.

24. **Resuscitation.**—The authors find that defibrinated blood soon loses its power to maintain the activity of the higher nervous centers as well as to nourish the various tissues. As a substitute for blood, artificial fluids are not satisfactory, and the proper oxygenation of the blood is indispensable in resuscitation of an animal. Resuscitation of the heart after it has ceased to respond to a manometer may sometimes be accomplished by extra thoracic massage and artificial respiration, but only during the period that the heart continues to beat. Direct massage of the heart is the most certain method at hand for resuscitation, and proper blood pressure is necessary for its continued activity. Anesthetics, hemorrhage, and induced currents applied to the heart, make resuscitation more difficult than asphyxia alone.

25. **Leucocytes and Tuberculous Lesions.**—Opie finds that in dogs experimental tuberculosis of the pleura is inhibited to a greater or less extent by the injection of dog leucocytes, obtained by the use of intrapleural injections of a sterile irritant. The experiments indicate that only living leucocytes can accomplish this inhibition. While the injected leucocytes may exercise a readily demonstrable inhibitory effect on the local pleural lesions, no evidence was obtained that the injected leucocytes have any effect on the dissemination of tuberculosis, as, for instance, to the liver.

Lancet-Clinic, Cincinnati.

May 16.

26 *X*-Rays and Their Application to Dentistry. S. Lange, Cincinnati.
27 The Fetal Heart. M. A. Tate, Cincinnati.
28 Treatment of Epilepsy. D. R. Brower, Chicago.
29 Support of the Honest Pharmacist. L. A. Clary, Winfield, Kan.
30 The Mulatto and the Morbid Proclivities and Retrogressive Tendencies of His Offspring. A. N. Ellis, Maysville, Ky.

Medical Fortnightly, St. Louis.

May 11.

31 *Deformity of Penis Producing Impotency Due to Arteriosclerosis. G. F. Lydston, Chicago.
32 Gastric Artery; Proximal Concentric Gastric Circle. B. Robinson, Chicago.
33 Origin of Life. A. S. Ashmead, New York.
34 Puerperal Pyemia. A. Bode, St. Louis.
35 Syphilitic Lobar Pneumonia. J. A. Henske, St. Louis.

31. **Impotency from Arteriosclerosis.**—Lydston discusses a form of impotentia coeundi due to cavernositis chronica, sclerosing inflammation of the corpora cavernosa, which, though not generally so recognized, he considers dependent on a general systemic condition. The patient above middle age complains of curvature of the penis during erection until coitus becomes impossible. Syphilis, alcohol, rheumatism and gout, are the chief etiologic factors, though it is difficult to explain why the pathologic process should localize itself in the penis. Whatever the primary etiologic factor may be, the penile process is merely the local expression of general arterial disease. In these cases cardiovascular changes are found. arcus senilis may be present, or the marked signs of hypervascular tension. The prognosis is unfavorable so far as disappearance of the deformity is concerned, but the condition is painless and not dangerous to life. He reports a case.

University of Pennsylvania Medical Bulletin, Philadelphia.

April.

36 *Injuries of the Spinal Cord. A. R. Allen, Philadelphia.
37 *Pathologic Physiology of Blood Pressure. G. W. Norris, Philadelphia.
38 Typhoid Meningitis without other Lesions. R. S. Lavenson, Philadelphia.
39 Increase of the Osmotic Pressure of Venous Blood After the Closure of the Afferent Artery. H. Wolf, New York.

36. This article was published in THE JOURNAL, Mar. 28, 1908, page 941.

37. **Blood Pressure.**—Norris discusses the physioloy of blood pressure and shows that pathologically much greater fluctuations are common than the normal. Hypotension occurring in various infectious diseases has not received the attention it deserves. In discussing a rise of pressure, particularly with relation to emotional factors, Norris says that it is little realized by the profession how great an influence aberrance of local blood supply has on the mood, the mental poise, apathy and physical *bienfaisance* of the individual. In chronic melancholia there is frequently subnormal vascular tension. Concentrated psychic effort requires increased cerebral blood supply, hence too great warmth, especially of the lower extremities, is inimical to thought. With organic lesions of myocardium or blood vessels, objective findings are more marked and subjective disturbances more intense than with normal individuals. Localized or peripheral angiospasm may bear a more important relation to angina pectoris than has been supposed. Hypotension produces pulse exhilaration through stimulation of the cardioaccelerator nerve by cerebral anemia. Some cases of tachycardia from heart weakness may result from hypotension. It occurs also in advanced arteriosclerosis, shock, and after large dosage of alcohol, chloral, or veratrum viride, and has the result of toxemia in typhoid and tuberculosis. The effect of pain, fright, or mental excitement, in producing increased tension must always be borne in mind when making blood-pressure observations. That some cases of arteriosclerosis have hypertension while the majority of cases have relatively normal pressures is to be explained by the location of the arterial thickening. In some cases only diastolic pressure is indicated. In uremia one encounters some of the most extreme grades of hypertension, suggesting a definite relation between it and such symptoms

as amaurosis, headaches, vomiting, and coma; presumably because both conditions depend on toxemia as an underlying basis. As to the conservative mechanism of vascular hypertension in chronic interstitial nephritis, it is justifiable to attempt to lower tension in these cases only by dietary methods and not by employment of direct treatment. The old mechanical theories as to the cause of hypertension in nephritis are no longer tenable. Loeb's investigations have shown that hypertension is generally commensurate with the extent of glomerular involvement, so that the process is a conservative one. We must not lose sight of the effect which the breathing of rarefied air has on this factor both in health and disease. Instability of the blood pressure, alternate hypertension and hypotension of abnormal degree and without cause, occurs notably at the menopause and in exophthalmic goiter, and is probably due to perverted internal secretion. The diastolic pressure has been too much overlooked in the past. The manner in which the circulatory functions are carried out depends on the mean pressure, as represented by the diastolic pressure plus one-third of the pulse pressure—i. e., the difference between systolic and diastolic tension.

Bulletin of the Lying-in Hospital of the City of New York.

December.

40 Case of Phlebothrombosis. J. E. Welch, New York.
41 Two Cases of Pyelonephritis Complicating Pregnancy. J. W. Markoe, New York.
42 *Two Hundred and Fifty Cases of Placenta Prævia. R. McPherson, New York.
43 Case of Scorbutus. E. L. Coolidge, New York.
44 Case of Hereditary Syphilis. Id.
45 One Hundred Cases of Cesarean Section with Special Attention to the Indications, Surgical Technic and Results. E. S. Gushee, New York.
46 Application of Bier's Method in Treatment of Puerperal Mastitis. J. W. Markoe, New York.

42. Placenta Prævia.—McPherson discusses the variations, theories of causation, relative frequency, month of gestation at delivery, and mortality as regards mothers and children, in placenta prævia. A tabular analysis is given of 250 cases drawn from the records of 52,000 births at the New York Lying-In Hospital. In these cases delivery was accomplished in 176 cases by internal podalic version, in 29 cases by breech extraction, 5 cases by forceps, 2 cases by Cesarean section, 15 children were born spontaneously, 1 child by embryotomy, and 6 children by craniotomy, while in 16 cases the method of delivery was not noted. Although Cesarean section was performed twice in this series for a deformed pelvis, a living mother and child resulting in both cases, the author does not consider it desirable as a general thing. Given a woman in good condition, a normal pelvis, and a viable fetus, nearly as good results can be obtained by packing and rapid version. Cesarean section, however, may offer a better chance in a primipara with rigid cervix and slightly undersized pelvis or in a multipara with cervix rigid from scar tissue or otherwise undilatable or with deformed pelvis.

Yale Medical Journal, New Haven.

April.

47 *Postnasal Inflammation as a Cause of Febrile Attacks in Young Children. H. L. Swain, New Haven, Conn.
48 Case of Rabies. C. J. Bartlett, New Haven, Conn.
49 Gastroenterostomy. S. G. West, Chicago.
50 Treatment of Hemorrhoids. E. P. Pitman, New Haven, Conn.

47. Postnasal Inflammation and Febrile Attacks.—Swain points out that many febrile attacks of children formerly termed simple fever were probably such as we now find today associated with acute inflammation of lymphoid tissue in the nasopharynx. He discusses the embryology, histology, and physiology of the pharyngeal and faucial tonsil, and points out that the phagocytes in the deeper layers act as custom house officers in regard to germs and other foreign particles entering the system through them as a port of entry. The tonsils, viewed as integral parts of the lymphatic system, are influenced by the general condition of the organism. When the system demands white cells, or if the individual is below par, the leucocytes of all the tonsils go into the system to answer the general call to arms, leaving many less to guard the outworks of the fort. Then the pathogenic germs, which are ever with us, seize the opportunity and force the outworks, giving rise to streptococcus or staphylococcus throat, diphtheria, grip, etc. It is therefore easy to understand the great systemic disturbance that may follow a morbid condition of the lymphoid tissue in the postnasal space, where it is difficult to cleanse, and where abundant mucus is retained, forming an excellent breeding ground for germs, the same tissue being also an excellent absorber for the system. As to treatment of these cases when diagnosed, we have a safe and effective helper in preparations of the suprarenal gland, sprayed or dropped from a medicine dropper through the nostrils with the child lying on its back, after cleansing the space with some alkalin medium. The insufflation of boric acid, with or without sugar, through the mouth into the nasopharynx, by causing a free secretion of fluid mucus lessens the engorgement and stimulates the tissue to healthy action. Concomitant enlargement of the faucial tonsils should also be treated. In removing this nasopharyngeal tissue he urges the necessity of making parents understand that all lymphoid tissue never can be removed, so that enlargement may recur and a recurrence of inflammation is possible.

Chicago Medical Recorder.

April.

51 Imperforate Anus. C. J. Drueck, Chicago.
52 Investigation into the Causes of 27 Cases of Typhoid Occurring in October, 1907, in Oak Park. A. F. Storke, Oak Park, Ill.
53 Treatment of Gonorrhea. J. W. Koehn, Chicago.
54 Control of the Sexual Instinct. D. Lewis, Chicago.
55 The Cystoscopic Aspect in Prostatic Hypertrophy. G. Kollscher, Chicago.
56 Delayed Menopause. C. J Whalen, Chicago.
57 *The Crime of Gynecology. C. W. Barrett, Chicago.
58 Hereditary Syphilis. V. F. Masiko, Chicago.
59 Plea for the Early Climatic Treatment of Pulmonary Tuberculosis. F. E. Waxham, Denver.

57. The Crime of Gynecology.—Barrett's paper is devoted to insisting on the importance of special gynecologic surgeons to perform the gynecologic work in hospitals. All gynecology is not surgery, but some gynecology is surgery and it is up to the standard of surgery, whereas some surgery is gynecology, but it is not usually up to the standard of gynecology.

Maryland Medical Journal, Baltimore.

April.

60 *Use of Nitrous Oxid and Oxygen Alone and in Combination with Ether as Anesthetics in General Surgery. H. W. Buckler, Baltimore.
61 Bacteriologic Examination of Milk. W. R. Stokes, Baltimore.
62 *Acute Pyelitis Due to Acute Appendicitis. G. L. Hunner, Baltimore.
63 Operative Treatment of Cancer of the Stomach, with Report of Six Partial Gastrectomies. J. H. Branham, Baltimore.
64 Psychotherapy in Treatment of the Functional Neuroses. A. P. Herring, Baltimore.
65 Should Prisoners Deficient Either Mentally or Physically Be Tried in Our Courts of Justice? T. Cooke, Jr., Baltimore.

60. Anesthetics.—Buckler describes a method using nitrous oxid and ether, alone or in combination, and oxygen. He describes and illustrates his apparatus, which is constructed on the same principles as the Hewitt inhaler with certain simplifications. The following advantages are claimed for this method: First, a more even anesthesia, with a minimum risk to the patient as we know approximately the strength of the vapor inhaled at each inspiration. Second, the ether vapor, being warmed, little or no mucus forms in the mouth or throat, and the patient does not swallow or inspire a lot of ether-saturated saliva or mucus; consequently the amount of postoperative vomiting is decreased to a minimum and the risk of postoperative pneumonia is reduced. Third, the warmed ether vapor is taken up by the blood almost immediately, and therefore the effect of the anesthetic is more rapid. When cold ether vapor is taken into the lungs, as in administration by the drop method, a large amount remains in the reserve air of the lungs, to be warmed over before it is capable of being absorbed in the blood, and such an amount of unabsorbed ether vapor being suddenly taken up by the circulation is a menace to the life of the patient. Fourth, the saving of ether is tremendous when giving by this vapor method, as he finds that he needs only from one-quarter to one-half the amount used in the drop method. The greatest advantage of all is the marked lessening of all unpleasant after-effects of ether when this form of administration is used.

62. This article was published in THE JOURNAL, April 25, 1908, page 1328.

Wisconsin Medical Journal, Milwaukee.

April.

66 *Removal of Gallstones from the Second and Third Portions of the Common Bile Duct. F. G. Connell, Oshkosh.
67 Treatment of Consumptives from a Sanatorium Viewpoint. T. H. Hay, Stevens Point.
68 Injury to the Kidneys. W. E. Fairfield, Green Bay.
69 Diagnosis and Clinical History of Puerperal Sepsis. G. Saunders, Superior.
70 *Surgical Treatment of Puerperal Sepsis. J. M. Dodd, Ashland.
71 *Medical Treatment of Puerperal Sepsis. H. L. Rosenbery, Wausau.

66. **Gallstones.**—Connell describes the anatomy of the region, the signs, symptoms, and diagnosis, as well as the nature of concretions, and describes retroduodenal and transduodenal choledochotomy. He gives a synopsis of a case and analyzes seventy-seven instances in which the common duct was opened through the duodenum with ten deaths, as reported in the literature. The mortality is higher than that following simple supraduodenal choledochotomy, which is between two and three per cent., but the transduodenal operation is always a method of necessity and never of election.

70 and 71. Abstracted in THE JOURNAL, Aug. 31, 1907, p. 796.

Pennsylvania Medical Journal, Athens.

April.

72 *Factors in Diagnosis of Urinary Inadequacy in Surgical Kidneys. J. H. Anderson, Pittsburg.
73 *Disorders of Sleep. T. Diller, Pittsburg.
74 *Do We Hear Ourselves as Others Hear Us? G. Hudson-Makuen, Philadelphia.
75 Review of the Epidemic of Typhoid Fever in Scranton. W. E. Keller, Scranton.
76 Kefir; An Experiment in Typhoid Feeding. L. Litchfield, Pittsburg.
77 What Stand Should the United Pennsylvania Medical Profession Take on the Reduction of Fees by Life Insurance Companies? J. N. Hunsberger, Skippack.
78 *Lodge Practice. G. E. Holtzapple, York.
79 Pennsylvania Plan of State Aid to Local Hospitals. J. Price, Philadelphia.
80 Newspaper Publicity a Necessary Element in the Movement for Medical Reform Legislation. E. Stirling, Philadelphia.
81 Consolidation of Multiple Medical Examining Boards into a Union or One-Board Plan Required to Give Full Satisfaction. Success of Latter Arrangement in Forty-four Other States and Territories. Revocation of License for Medical Criminals. A. Eichholz, Philadelphia.
82 The Family Physician and the Modern Specialist. A. S. Harshberger, Lewistown.

72. **Urinary Inadequacy in Surgical Kidneys.**—Anderson, in his oration on genitourinary surgery, summarizes a comparison of the older clinical methods of investigating the urinary condition with the newer methods, by stating that the older clinical method gives us a more accurate knowledge of the effect of renal inadequacy on the patient's constitution, a more accurate prognosis of an operation than cryoscopic index, quantitative analysis, or elimination tests. On the other hand, segregation and catheterization give a more accurate comparison between the kidneys and a more accurate diagnosis of the kind of lesion and the operation required.

73. **Sleep Disorders.**—Diller discusses the sleep numbness, nocturnal paresis or paralysis of Mitchell, night terrors, and sleep walking, "sleep jerks," a sleep aura, sleep pain, sensory shock, tonic spasm and respiratory failure in sleep, and gives illustrative cases of his own observation under several of these heads.

74. **How We Hear Ourselves.**—Makuen points out the existence of physical difference between subjective and objective hearing; an illustration of which, one can obtain by listening to a reproduction of one's own voice in the phonograph. He relates a clinical instance of a boy past fifteen, with a falsetto voice, who was easily trained to produce single tones having a normal chest resonance, but who objected to speaking that way as it sounded to him harsh and disagreeable. Hundreds of people have defects of speech and voice of which they are absolutely unconscious. Hearing in its finality is a mental process, and like all mental processes is susceptible of training.

78. **Lodge Practice.**—Holtzapple tabulates the replies to a circular letter, addressed to 231 physicians living in as many municipalities, asking for information concerning the conditions of lodge practice in their districts. He discusses the ethics of the question, with special reference to the Principles of Ethics of the American Medical Association, and considers the motives that lead to the adoption of lodge practice by physicians. He urges the creation of a sentiment against this pernicious practice in the profession.

New Orleans Medical and Surgical Journal.

April.

83 *Non-Gonorrheal Prostatic Disease in Young Men and Its Reflexes. C. W. Allen, New Orleans.
84 Excision of Shoulder in Old Unreduced Dislocation. H. B. Gessner, New Orleans.
85 Ten Cases of Gunshot Wound of the Abdomen Treated Without Operation. E. D. Martin, New Orleans.
86 Cause and Management of Infection of the Extremities. L. Sexton, New Orleans.
87 Surgery of the Kidney, with Special Reference to the Use of the Gauze Sling in Fixation of the Kidney. J. A. Danna, New Orleans.
88 Early Diagnosis and Radical Treatment of Uterine Carcinoma. S. M. D. Clark, New Orleans.
89 Treatment of Abortion. R. W. O'Donnell, Monroe, La.
90 Treatment of Uterine Prolapse and Cystocele. C. J. Miller, New Orleans.

83. **Prostatic Disease.**—Allen holds that serious prostatic disturbance can occur in individuals entirely free from any past gonorrheal taint or other specific infection, though this fact is not generally known. He reports cases in support of his conviction. He is inclined to compare men with prostatic disease with women with uterine affections. The prostate is capable of giving rise to all that train of reflex and nervous symptoms seen in cases of chronic uterine disease. Massage of the organ is frequently productive of shock. A neurotic element in the individual greatly favors the development and persistence of reflex nervous symptoms.

Albany Medical Annals.

April.

91 *The Insanity Defense for Crime. J. B. Chapin, Philadelphia.
92 Early Diagnosis of Pulmonary Tuberculosis. L. Brown, Saranac Lake, N. Y.
93 Treatment of Pulmonary Tuberculosis. A. H. Garvin, Ray Brook, N. Y.
94 Personal Experiences of a Patient in a Hospital for the Insane.

91. **Insanity and Crime.**—Chapin points out that the important changes made in the trial of persons charged with crime and alleged to be insane have occurred practically within a century. The "right and wrong test," formulated in 1843 in England, has been changed as the result of more careful clinical observation, since, although the majority of insane persons certainly know generally what is right or wrong, yet in certain instances the controlling will-power is destroyed. He summarizes a series of celebrated cases, and refers to the defense of mania transitoria, a sudden and instantaneous development of insanity with an equally sudden return to sanity. Such cases may be called an irresistible impulse, but they may really be cases where an impulse was not resisted. He offers as the consensus of opinion of managers who are in frequent contact with the insane, that they do not find this class of cases in their institutions, and speaking for himself he has not met them in his practice. He feels like entering a strong protest against the result of the "insanity dodge." Clinical experience or observation demonstrates clearly that insanity does not come and disappear instantly with the commission of a criminal act. It is the result of long operating causes or degeneration, whether observed or not. He suggests the importance of differentiating the degree of criminality, rather than of finding a verdict of absolute acquittal.

Texas State Journal of Medicine, Fort Worth.

April.

95 *Cause of Insanity in Women. R. B. Sellers, Comanche.
96 Anesthesia and Anesthetics. E. F. Cooke, Houston.
97 Relation of Suicide to Insanity. W. L. Allison, Dallas.
98 Carcinoma of the Lip. H. M. Doolittle, Dallas.
99 Dengue. F. B. King, Houston.

95. **Insanity in Women.**—Sellers insists on the fact that there are many forms of mental disease, such as melancholia, due to abnormal conditions in the pelvic organs. He refers to four cases, in each of which early operation relieved both the mental and the pelvic trouble. The crowded condition of insane asylums is responsible for the fact that more surgical and gynecologic work is not done there. Sellers thinks that 10 per cent. of such patients could be cured by surgical methods.

Journal of the Arkansas Medical Society, Little Rock.

March.

100 *Nitrogenous Constituents of Human Urine; Acidity and Acidosis. C. H. Hoffman, Little Rock.

100. Nitrogenous Constituents of Urine.—Hoffman says that the determination of urea and total nitrogen, unless performed with the painstaking accuracy of a metabolic experiment, and covering a considerable period of time, is of small value. Performed in the proper manner, it is of inestimable value, but the results must at all times be interpreted with care and conservatism, particularly in drawing conclusions as to renal insufficiency. The ordinary urea determinations, as performed by some practitioners and in some clinical laboratories with the Doremus apparatus (a method which by itself carries more than 7 per cent. of error, and the employment of which is nothing short of ceremonious delusion), are often worse than valueless, for they may give rise to serious misinterpretation on the one hand, causing alarm when there is no danger, and on the other lulling the physician into a false state of security when serious danger is impending. Combined with the crude ideas of underfeeding the poor nephritic (exclusive milk diet, withdrawal of meat, etc.) that are largely employed, he thinks this kind of urea determinations is the chief reason why so many nephritics are starved to death.

Detroit Medical Journal.

April.

101 Manic Depressive Insanity. A. M. Barrett, Ann Arbor.
102 *Acute Poliomyelitis. G. Connor, Detroit.
103 Vaginal Cesarean Section. M. Stamm, Fremont, Ohio.

102. Acute Poliomyelitis.—Connor tabulates the literature of epidemics from 1843 to 1907, and summarizes the symptomatology, the distribution of the permanent paralysis, and the treatment.

Annals of Otology, Rhinology and Laryngology, St. Louis.

March.

104 *The Optic Nerve and the Accessory Cavities of the Nose. A. Onodi, Budapest, Hungary.
105 Ten Cases of Intracranial Complications of Middle-Ear Disease. S. J. Kopetzky, New York.
106 Ocular Symptoms of Intracranial Complications in Otitic Disease. P. Fridenberg, New York.
107 Thrombosis of the Posterior Cerebral Veins and Artery Encephalitis, Purulent Leptomeningitis, Lateral Sinus Phlebitis and Parietal Thrombosis Following Mastoiditis. W. S. Bryant, New York.
108 Plea for Conservatism in Treatment of Certain Affections of the Nose and Ear. H. L. Myers, Norfolk, Va.
109 *Primary Nasal Diphtheria. T. Hubbard, Toledo, Ohio.
110 Plea for Local Anesthesia in Operations on the Maxillary Sinus. G. King, New Orleans.

104. Canalicular Neuritis.—Onodi considers at great length the relations between the accessory cavities of the nose and atrophy of the optic nerves. His considerations lead him to conclude that a causal connection is probable between a one-sided, double-sided, or contralateral sight impairment and blindness and disease of the accessory cavities, particularly those of the posterior ethmoid cells and the sphenoidal sinus, and that he has been able to establish an anatomic foundation for this theory. An exact pathologic-anatomic foundation yet remains to be established. The article is elaborately illustrated.

109. Primary Nasal Diphtheria.—Hubbard says that we are less careful in diagnosis now than in the pre-antitoxin period. Primary nasal diphtheria differs from ordinary faucial diphtheria in being a subacute or chronic process, and of slight toxicity; but these cases harbor the bacilli longer than those of the faucial type, so that isolation should be prolonged. There are two types. In one there is a formation of false membrane, sometimes completely filling one or both nasal fossæ with casts, and a watery, acrid, mucopurulent discharge. The other is merely a diphtheritic inflammation of the mucosa with a copious watery discharge of acid mucopus. The fibrinous type is commoner in older children, the catarrhal type in infants. There is a tendency to reinfection and relapse. Extension from nares to fauces is rare, though it is said to have taken place. He discusses the symptomatology and reports cases. Antiseptic irrigation and douching are futile, and may be dangerous. A mild detergent solution dropped into the nares with a medicine dropper is sufficient.

Mississippi Medical Monthly, Vicksburg.

May.

111 *Home Treatment of Pulmonary Tuberculosis. J. B. Elliott, New Orleans.

111. Abstracted in THE JOURNAL, May 30, 1908, p. 1821.

St. Louis Medical Review.

April.

112 Pathology and Diagnosis of Hydrophobia. D. L. Harris, St. Louis.
113 *Impotency the Result of Deformity of the Penis Due to Arteriosclerosis. G. F. Lydston, Chicago.
114 Unusual Case of Gonorrheal Ophthalmia. E. H. Higbee, St. Louis.
115 Surgery of the Ureter. B. M. Ricketts, Cincinnati.

113. See abstract No. 31.

American Practitioner and News, Louisville.

May.

116 Cancer of the Breast. F. W. Samuel, Louisville, Ky.
117 Cellac Axis. B. Robinson, Chicago.
118 Eyestrain. W. J. Leach, New Albany, Ind.

Vermont Medical Monthly, Burlington.

May.

119 Diagnosis and Treatment of Syphilis. J. Pedersen, New York.
120 Etiology, Symptoms and Treatment of Melancholia. W. D. Berry, Burlington.
121 Treatment of Litigation Neuroses. C. S. Calverly, Rutland.

Louisville Monthly Journal of Medicine and Surgery.

May.

122 Postoperative Abdominal Adhesions C. W. Hibbit, Louisville.
123 Exophthalmic Goiter. J. R. Wathen, Louisville.

FOREIGN.

Titles marked with an asterisk (*) are abstracted below. Clinical lectures, single case reports and trials of new drugs and artificial foods are omitted unless of exceptional general interest.

Lancet, London.

May 9.

1 *Influence of Pregnancy on Certain Medical Diseases and of Certain Medical Diseases on Pregnancy. H. French.
2 *The School and Its Part in the Prevention of Tuberculosis. J. Hay.
3 *Experimental Production of Gastric Ulceration by Injection of Gastrotoxin. C. Bolton.
4 Leprosy: Its Causation, Symptoms and Treatment Based on and Experience of 152 Lepers in the Leper Jail of the United Provinces, India. T. Hunter.
5 Aortic Aneurisms; Sudden Deaths; Capacity of the Pericardium. H. A. Smith.
6 *Precipitin Reaction in Hydatid Disease. D. A. Welsh and H. G. Chapman.
7 Operative Surgery of Labyrinthitis. C. E. West and S. Scott.
8 The Nursing Difficulty in France.

1. Pregnancy and Medical Diseases.—In his second Goulstonian lecture French deals with suppurative lesions other than those dealt with in his first lecture in relation to pregnancy, with tuberculous and calcareous diseases, non-suppurative renal affections—the cause of pregnancy nephritis, albuminuric retinitis, the effect of twin pregnancy on the kidneys and of nephritis on the child—pregnancy in patients who have only one kidney, tetany and pregnancy and appendicitis in association with pregnancy.

2. The School and Tuberculosis.—Hay summarizes his conclusions as follows: Without infection there is no tuberculosis. Pulmonary tuberculosis is either open, in which case the patients are infectious, or closed, then the patients are not dangerous to others. School-going children as a class are healthy; only 0.5 per cent show definite signs of pulmonary tuberculosis. From 10 to 15 per cent. approximately are predisposed to consumption and in all probability suffer from latent tuberculosis; special care should be given to these children. The periodical medical examination of the scholars, teachers and caretakers is essential. School hygiene can not be divorced from home hygiene. The active cooperation of the school medical officer and the medical officer of health is most desirable and tends to efficiency and economy of administration. Tuberculosis of infants and children is almost always due to human infection, and that infection generally occurs at home. The segregation of incurable and dangerous consumptives in union infirmaries and elsewhere will greatly diminish the incidence of infection among infants and young children.

The children must be utilized to educate their parents. The schools should be centers for the dissemination of accurate information concerning consumption and thus help to form public opinion.

3. **Gastric Ulcer.**—Bolton conceived the idea of preparing a gastrotoxic serum active against gastric cells, with a view of throwing light not only on the phenomena of cytotoxic action, but also on the obscure problem of gastric ulceration. He describes the mode of preparation of such a serum and the results of its injection in the living animal. Analysis of the serum *in vitro* shows it to be hemolytic and to contain several precipitins. The results of his experiments seem to him to open up new lines along which to prosecute further research in regard to gastric ulcer. It is possible that not only certain endogenous but also certain exogenous poisons may be capable of initiating self-digestion through the blood stream, and that the production of such lesions may be facilitated not only by hyperacidity of the gastric juice, but also by other bodies introduced with the food. It seems that all ulcers produced by digestion of dead or devitalized tissue are essentially acute, and, since human gastric ulcer is commonly a chronic malady, it is not so much the actual mode of production which it is necessary to explain, as the fact that the ulcer so persistently refuses to heal. It is possible that this chronicity may depend on a secondary bacterial infection of the ulcer largely owing to muscular insufficiency, but on the latter point he hopes to be able to speak more definitely at a future date.

6. **Hydatid Disease.**—Welsh and Chapman, as a result of experiment in hydatid cases prior to operation, state that interaction between selected hydatid fluids and a sufficiency of the serum of a patient affected with hydatid disease, in their experience of nine cases, has never failed to give a positive precipitin reaction when tested before operation. Not all hydatid fluids are capable of eliciting this reaction and their failure is not associated with any noticeable diminution of their protein content. Persistence of a marked reaction some weeks after operation probably indicates the continued presence of the parasite, but the disappearance of the reaction does not necessarily indicate complete removal of the cysts. A positive reaction is independent of the site of the hydatid cyst (hepatic, peritoneal, muscular), and independent also of the nature of its contents, whether clear, turbid or purulent.

British Medical Journal, London.

May 9.

9 Diagnosis and Operative Treatment of Diseases of the Stomach. B. Dawson.
10 *Gastroenterostomy and After. B. G. A. Moynihan.
11 Erythrocythemia and Cyanosis. W. P. Herringham.
12 Recognition and Training of Congenital Mental Defectives. W. A. Potts.
13 Outbreak of Beriberi on Board a Merchant Vessel. S. Roach.
14 *Treatment of Bronchial Catarrh by Alkalies. A. Haig.
15 *Influence of Pregnancy on Certain Medical Diseases and of Certain Medical Diseases on Pregnancy. H. French.

10. **Gastroenterostomy.**—Moynihan considers the after results of his cases in four groups, as follows: 1, Perforation of the stomach or duodenum, 27 cases; 2, acute hemorrhage, 23 cases; 3, chronic gastric or duodenal ulcer, 205 patients with 214 operations; 4, hour-glass stomach, 15 cases of gastroenterostomy, combined in 6 of them with gastroplasty or gastrogastrostomy. He gives the result of an inquiry into the after-history of these cases, which represent those operated on from the beginning of his experience to the end of 1905. He concludes as follows: Gastroenterostomy is a short-circuiting operation, and, like all such procedures, acts best when a gross mechanical obstruction exists in the normal path of the intestinal contents. Experimental work shows that when the pylorus is normal, and there is no impediment to the passage of food through it, the opening made in the operation of gastroenterostomy does not allow of the escape of any of the gastric contents into the intestine. The operation, therefore, gives the best results in cases in which there is organic disease in the prepyloric or pyloric regions of the stomach or duodenum, or when performed on the cardiac side of a stenosis in the body of the stomach. When an ulcer is found on the lesser curvature near the cardia it should be excised, if possible; gastroenterostomy is not necessary, and if performed is either almost useless or entirely harmful. When there is a suspicion of malignancy in an ulcer or ulcers in the pyloric region, Rodman's operation should be performed. Under no circumstances, and in compliance with no persuasion, however insistent, is gastroenterostomy to be done in the absence of demonstrable organic disease. Regurgitant vomiting, formerly the most troublesome of all complications, is dependent on faults in the operation which result in some mechanical obstruction to the intestine. These faults are chiefly dependent on the presence of a loop in the jejunum, but may also be caused by a twist in the intestine around its longitudinal axis at the time of its application to the stomach. The posterior no-loop operation with the vertical application of the bowel to the stomach is the best procedure.

14. **Bronchial Catarrh.**—Haig endorses the recommendations of Buckler (*American Journal Medical Sciences*, July, 1882), as to the value of salicylates in certain cases of bronchial inflammation accompanied by high acidity of the urine. He differentiates, however, a class in which dyspnea is accompanied by a falling acidity of the urine. In this class he has found it necessary only to give an alkali almost alone, say sodium bicarbonate, grains 20 (1.30 gm.) to 60 (3.90 gm.) for a child, or 90 (4.95 gm.) to 120 (7.80 gm.) for an adult, in the twenty-four hours. On no account should ammonia or any drug tending to raise the acidity of the urine be given with it, and even such flavoring matters as orange and sugar are best left out. The alkali must be given in sufficient quantity to make the urine alkaline. When that is effected, the alkali is reduced to a small dose and a little belladonna is added to dry up the secretions.

15. See Abstract No. 1.

Clinical Journal, London.

May 6.

16 *Diagnosis of Medical Diseases of Joints. W. H. White.
17 Mortality Statistics During the Last Half Century. S. Phillips.
18 Abdominal Suppuration of Obscure Origin. C. A. Morton.

16. **Diseases of Joints.**—White discusses rheumatoid arthritis at length. It may be acute or chronic. In the acute form a noticeable feature is that the pulse rate is usually much higher than the temperature would lead us to expect. It is much the same night and morning, and remains high after the temperature has fallen. This is a constant feature, and is not associated with any evidence of valvular disease of the heart. Many joints are affected in quick succession. Pain is prominent from the first. It differs from the maladies with which it is most likely to be confounded by the fact that the temporomaxillary joints and the spine are likely to be severely implicated. The *x*-ray shows that no bony outgrowths or alterations in the bones occur. From osteoarthritis the chronic form is distinguishable by the younger age of the patient, the involvement of the temporomaxillary joints, and the fact that the terminal phalanges of the fingers escape. From rheumatic fever it is differentiated by the fact that in the latter arthritis soon leaves one joint and appears in another. The phalangeal joints and those of the spine and jaw are rarely affected in rheumatic fever. The sweating is all over the body, pigmentation is not common, wasting not extreme. Cardiac trouble is common in rheumatic fever, rare in rheumatoid arthritis. Great rapidity of pulse, apart from cardiac disease, is uncommon in rheumatic fever, which disease does not cause the spindle-shaped swelling of the joints common in rheumatoid arthritis, or leave behind a permanent defect of the joints. In gonorrheal rheumatism the knees are most often affected; we rarely see the spindle-shaped swelling of the fingers, but the sheaths of the tendons and bursæ are often affected. Also there is commonly pain at the back part of the sole of the foot. White believes that the diagnosis of rheumatic fever should always be withheld so long as only one joint is affected. Even if only one joint is affected early, a second will be affected within twenty-four hours. The diagnosis between pyemic arthritis and rheumatic fever is most important, for if pyemia is called rheumatic fever, failure to adopt surgical treatment may end life in a few days after a

favorable prognosis has been given. The diagnosis is likely to be especially difficult if the pyemia takes the form of malignant endocarditis. Syphilis with effusion into the joints has been mistaken for rheumatic fever. Pyrexia with pain and effusion in the joints is common as an early symptom of cerebrospinal meningitis. In countries where dysentery is common the accompanying arthritis may cause difficulty, as also may that of glanders. Pneumococcal arthritis has been thought to be rheumatic. In scarlatinal rheumatism, so-called, it can not be definitely settled whether or not the arthritic symptoms are due to true rheumatic fever as a complication.

Medical Press and Circular, London.

May 6.

19 Early Diagnosis in Surgical Diseases of the Kidney, with Special Reference to Physical Methods of Examination. D. Newman.
20 Five Cases Illustrating Diseases of the Gall Bladder. G. Reinhardt-Anderson.
21 Painless Hematuria. A. Fullerton.
22 Bacteriology as It Affects General Practice. S. J. Ross.

Journal of Obstetrics and Gynecology of the British Empire, London.

April.

23 Frozen Sections of Bumm and Blumreich and Zangmeister. Is There a Lower Uterine Segment (to be continued)? A. H. F. Barbour.
24 *Case of Difficult Labor, with Observations on the Retraction Ring and the Postmaturity of the Fetus. H. R. Andrews and R. D. Maxwell.
25 Two Cases of Multilocular Retroperitoneal Cysts in Women. A. Doran.
26 *Early Tubal Gestation. A. C. H. Suhr.
27 *Ovarian Tumors in Sisters. Record of Three Instances in Which Two Sisters Were Successfully Operated on for Removal of Ovarian Tumors. A. C. Butler-Smythe.

24. **Retraction Ring and Postmaturity of Fetus.**—Andrews and Maxwell report a case of difficult labor in which the fetus, which was already dead, was, after every conceivable method of delivery had been tried, delivered by abdominal panhysterectomy. The uterus and its contents were at once frozen and sections made. From the findings the authors say: "A consideration of these points would lead us to modify the historical view of the contraction ring which explains its site purely by reference to the musculature of the uterus and certain anatomic relations therein, and without taking into consideration the disposition of the fetal parts conveys the impression that the uterine muscle can without any *point d'appui* suddenly undergo such a sharp transition in bulk as to present the clinical signs of a contraction ring. This specimen suggests that its causation is dependent entirely on the position and the relation of fetal parts occupying the lower uterine pole, and that by firm and rigid molding the ring is formed. The actual ring itself would appear to be due to a contraction of the circular fibers fitting tightly into a groove, as all specimens show that there is no sudden change of thickness. The case was clinically one of forty-four weeks' gestation, and the examination of the epiphysis at the upper end of the tibia confirmed that opinion." The authors discuss the question of postmaturity, and say: "We still remain in ignorance of the cause, or many interacting causes, that determine the onset of labor, but all the evidence at our disposal points to the fact that labor will set in at such a time as the placenta becomes inadequate to maintain the nutrition of the fetus. May it not be possible, indeed more than probable, that no essential difference should exist between the normal placenta and its postmature fellow, since the degenerative changes which determine the onset of normal full-time labor in the former case will in the latter be delayed and only precipitate labor when they have approximated to those of the normal full-time placenta?"

26. **Tubal Gestation.**—Suhr submits a series of recent cases and attempts to show that: 1. The tendency toward more frequent operation is justified and the results are much improved. 2. The risk of abdominal section is not greater than the risk of leaving patients without operation. 3. We are at present unqualified to select with safety cases for expectant treatment.

27. **Ovarian Tumors in Sisters.**—Butler-Smythe points out that while the association of uterine fibroids in sisters is not uncommon, such an association is much less so in the case of ovarian tumors. He reports a series of cases and notes the following coincidences: The patients were operated on by the same surgeon. In each instance one sister was single, the other married. In the first the unmarried sister had two large multilocular cysts, the other a multilocular cyst and a large cystic ovary. In the second, each sister had a dermoid tumor of the left ovary. In the third, each sister had a multilocular tumor of the right ovary, and both patients were said to be pregnant. In all three instances the sisters from each family were operated on consecutively. All the patients came under notice within the period of sexual maturity.

Australasian Medical Gazette, Sydney.

March

28 *Operative Treatment of Retrodisplacements of the Uterus. F. Barrington.
29 British and Foreign Clinics. R. Worrall.
30 Infantile Paralysis Simulating Meningitis; Tendon Transplantation. A. J. Turner.
31 *Notes from North Queensland. R. A. O'Brien.
32 Ring Cancer of the Sigmoid Flexure. W. A. Giles.

28. **Retrodisplacements of Uterus.**—Barrington lays down as preliminaries to operative rectification, curettement in all cases; repair, if necessary, of cervix, and of any marked defect in the musculo-fascial framework of the sacral segment of the pelvic floor. In choosing an operation attention must be paid to: 1. The previous history, especially as to infection following abortion, labor or gonorrhea. 2. Condition on bimanual examination, whether (a) uncomplicated, (b) complicated by intrapelvic abdominal changes, minor or major. 3. The prospects of future pregnancy. When the displacement is uncomplicated inguinal shortening of the round ligaments, the least dangerous of all operations, is best. Especially suitable cases are retroversio-flexion in nulliparous women, and parous women with uterus enlarged, retrodisplaced and freely movable, with deficient pelvic floor. Care must be taken that the ligaments are efficiently shortened, that they are fixed in their normal course with hernia-proof closure of the inguinal canals, effected by interrupted absorbable sutures, and that the loop representing the slack of each ligament is preserved and sutured to the skin external to the aponeurosis above the upper end of the incision, with fixation knot on skin surface. In complicated cases of minor character, i. e., without fixation, as in light pelvic adhesions, small ovarian cysts, hydrosalpinx, etc., he recommends opening the abdomen and shortening the round ligaments in the inguinal canals through a single transverse incision (Reuben Peterson). Other intra-abdominal operations suitable in different classes of more complicated cases, after mesial section, are grouped by the author as follows: 1. A loop of each round ligament is secured by temporary ligature in the abdomen and pulled (a) obliquely through the abdominal wall and fixed to the aponeurosis; (b) sub-aponeurotically through each internal abdominal ring to the middle line and there fixed to the aponeurosis and to one another. 2. By following each round ligament in various ways. 3. By carrying a loop of each round ligament through the broad ligament and securing the loop to the uterine wall. Any method of shortening the round ligaments is preferable to direct uterine suspension when pregnancy is a possibility. In extensive pelvic disease ventrosuspension and ventrofixation are justifiable only when natural age or morbid sterility exists. In removal of the appendages for inflammatory disease when raw surfaces are left on the upper aspect of the pelvic floor, the uterus should always be ventrosuspended, whether previously displaced or not. In cases in which the uterus is much damaged in separation of appendages it should be removed with them. A healthy ovary should always be left if possible. It is also sound practice to remove the vermiform appendix when there is a solution of continuity of the peritoneum on the right side, unless the appendix is post-cecal and normal. Otherwise it is prone to become adherent to the suture line.

31. **Notes from Queensland.**—O'Brien discusses malaria, ankylostomiasis, dengue, typhoid, sprue, filariasis, leprosy, yaws, amblyopia, pemphigus contagiosa, and ulcerating granuloma.

Dublin Journal of Medical Science.

May.

33 Clinical Examination of Urine. W. G. Smith.
34 Epidemic Diarrhea and Its Influence on Infantile Mortality. T. O. Graham.
35 Ocular Manifestations of Syphilis. T. J. T. Wilmot.

Journal of Laryngology, Rhinology and Otology, London.

May.

36 Surgical Treatment of Laryngeal Stenoses. E. v. Navratil.
37 Digital Examination of the Nose. D. McKenzie.

Annales de Gynécologie et d'Obstétrique, Paris.

April, XXXV, No. 4, pp. 193-256.

40 *Puerperal Staphylococcus and Colon Bacillus Sepsis. Marquis.

40. Puerperal Staphylococcus and Colon Bacillus Sepsis.—Marquis reports four cases of staphylococcus and three of colon bacillus septicemia and reviews a number from the literature. He says that puerperal septicemia is like any medical septicemia, and that the technic of treatment should be the same. His staphylococcus patients all recovered, the fever lasting from four to eleven days. In a fourth patient both the staphylococcus and the colon bacillus were found in the blood and the patient died in the fourth week. The staphylococcus agglutination test gave positive findings in each case. The colon bacillus sepsis dragged along for 50 and 100 days, but the patients finally recovered. Serum diagnosis, he asserts, is unreliable with the colon bacillus. If there are metastases the otherwise not very grave prognosis becomes serious. In the fatal case of symbiosis reported, a large laceration in the perineum had been left to take care of itself until fever developed. This, he states, is the first case of puerperal symbiosis on record without the streptococcus. Treatment was by intrauterine injection of an iodized solution every day, in the cases terminating in recovery.

Bulletin de l'Académie de Médecine, Paris.

April 21, LXXII, No. 16, pp. 477-488.

41 *Adenoid Vegetations in Adults. Chavasse.
42 *Antidiphtheria Serum in Ocular Infections. Darier.
43 *Injections of Alcohol in Neuralgia. Ostwalt.

41. Adenoid Vegetations in Adults.—Chavasse found 342 men with adenoid vegetations in 3,000 soldiers examined. Removal of the vegetations had a decided curative action on concomitant affections of the ear or nose. Heart disturbances were noted in 17; the nose was always much obstructed in these cases.

42. Antidiphtheria Serum in Ocular Infections.—Darier has been using antidiphtheria serum extensively in all kinds of ocular infections and his results have been encouraging except in the most virulent forms.

43. Deep Injections of Alcohol for Neuralgia.—Ostwalt has made about 2,000 injections of cocainized alcohol in neuralgia. All except 8 per cent. of the patients with facial neuralgia were cured. He has thus treated 152 patients with tic douloureux, 20 with facial spasm, and numbers of others with sciatica. He says that with the necessary prudence all accidents can be avoided, and that this treatment gives extremely satisfactory results and renders the greatest services to the patients. Only a brief summary is given of his memoir presented to the Academy, entitled "Four Years of Deep Injections of Cocainized Alcohol in Facial Neuralgia and Hemispasm."

Presse Médicale, Paris.

April 29, XVI, No. 35, pp. 273-280.

44 *Prophylaxis of Nervous Affections Based on Dietetic Measures. (Essai de prophylaxie des maladies nerveuses.) M. P. Londe.
45 Epidemic of Paratyphoid Fever. V. Collin and L. Fortineau.

May 2, No. 36, pp. 281-288.

46 Organic Reactions in Infection from the Trypanosoma of Dourine. H. Claude and M. Renaud.
47 The Principle of High-Frequency Currents. A. Zimmern.

44. Dietetic Prophylaxis of Nervous Affections.—Londe reviews the whole field of nervous affections to show the important part played by digestive disturbances and the curative action of restriction of the diet. Many a case of convulsions, encephalitis and meningitis in infancy could have been warded off by dietetic hygiene. The same is true of all neuroses, and especially the possibility of favorably influencing them by discontinuing the use of alcohol, meat and salt. What is most to be feared is a latent dyspepsia, the clogging of the digestive apparatus. Fortunate, he exclaims, is the patient whose dyspepsia attracts attention in time for dietetic prophylaxis. The amount of labor imposed on the digestive apparatus should be reduced, its functions promoted and autointoxication combated. He gives a number of examples to show the benefit of such measures in keeping under control severe nervous affections, including tabes, general paralysis, palsy, spinal cord sclerosis and the nervous symptoms tributary to visceral affections. Each person should regulate his life, he says, to accord with the resisting powers of his weakest organ, as a chain is only as strong as its weakest link. Especially must one keep pace with his digestive canal. If not, some lesion will surprise him, and the mere predisposition develops into actual organic trouble.

Archiv für Gynäkologie, Berlin.

LXXXV, No. 1, pp. 1-250. Last indexed, May 9, p. 1571.

48 Leucocytosis in Defense of the Body Against Infection. W. Busse.
49 Congenital Absence of Heart. (Herzlose Missgeburten.) E. Kehrer.
50 Case of Pulsation in Primitive Heart Tube in Human Embryo of Two Weeks. W. F. Armann.
51 Embryoma of the Ovary. (Solide Teratome des Eierstocks.) F. Bukojemsky.
52 *Clinical and Bacteriologic Study of Puerperal Fever. F. Fromme.
53 Tubal Menstruation. A. Czyzewicz.
54 Experimental Research on Action of Encapsulated Aërogenic Bacillus on the Mucosa of the Uterus and Vagina. (Einwirkung des Bacillus perfringens auf die Schleimhaut der Gebärmutter und der Scheide.) G. Heinricius.

52. Puerperal Fever.—Fromme advocates bacteriologic examination in every case of puerperal fever. When even all kinds of saprophytes can be cultivated from the uterus, but the blood is still sterile, the prognosis is favorable. It is not so favorable when streptococci predominate or display hemolytic properties. He gives the particulars of 12 cases.

Archiv für Verdauungs-Krankheiten, Berlin.

April, XIV, No. 2, pp. 107-240.

55 *Gastric Hemorrhages in Typhoid Fever. (Magenblutungen im Verlaufe des Typhus abdominalis.) H. Schlesinger.
56 *Arteriosclerosis of the Stomach. (Arteriosklerose des Magens.) A. M. v. Lewin.
57 *Primary Sarcoma of the Stomach. (Magensarkom.) A. Staehelin.
58 *Systematic Treatment of Obesity. (Methodik der Entfettungskuren.) I. Boas.
59 Action of Adrenalin on the Gastric Glands. (Adrenalinwirkung auf die Magendrüsen.) G. Yukawa.

55. Gastric Hemorrhage in Typhoid.—Schlesinger encountered recently two cases of this rare complication of typhoid and a third case was observed by another about the same time, also in Vienna. He says that a febrile affection commencing with hematemesis should suggest the possibility of typhoid.

56. Arteriosclerosis of the Stomach.—Lewin reports two cases and reviews the scanty literature on the subject. This affection may occur in the young; it may cause fatal hematemesis or merely prolonged melena, and it may occur independently of general arteriosclerosis. The diagnosis is generally difficult.

57. Primary Sarcoma of the Stomach.—Staehelin's patient was a woman of 51 whose grandfather died of gastric cancer, and her three sisters have also certain or probable cancer of the stomach. He reviews from the literature 82 cases of various forms of gastric sarcoma. It develops earlier than carcinoma, but displays a pronounced tendency to metastasis. Operative treatment gives excellent results, the resection of up to two-thirds of the stomach curing the patient permanently. Resection proved curative in nearly every case of lymphosarcoma. A preceding ulcer is rare. The course may be rapid or prolonged. Vomiting of blood was scarcely ever observed in the early stages, but pain was always an early symptom.

58. Treatment of Obesity.—Boas presents data to show that gradual reduction of the obesity may follow slight but persistent limitation of the amount of food, especially of nitrogen-free substances, with moderate but regular exercise. This reduction of obesity can be accomplished without essential

changes in the mode of life and without interfering with business. This slow but infinitely more effectual method of treating obesity is preferable for the milder and uncomplicated cases. It is immaterial whether the proportion of carbohydrates or—as he prefers—of fats is reduced. It is important, however, to maintain the albumin in due proportions. He never goes below 90 gm. a day. The conditions are different with complicated and constitutional obesity. In the latter case the organism resists all dietetic restrictions. To avoid weakening the patient, treatment must be cautious. It is enough to reduce carbohydrates and fats to keep from further increase in weight. In obesity complicated with heart disturbances the aim must be to reduce the weight rapidly. He does not advise restriction of water. After completing the acute course of treatment he begins chronic reduction, controlled by the patient's subjective well-being. The diet suitable to-day may be inappropriate a month later. He advises interposition of an occasional day of fasting, allowing only tea with lemon and saccharin, a little graham bread, two or three hard-boiled eggs, a plate of broth and a few tart apples —a total of 417 calories. The patients are generally soon convinced of the favorable influence of this fast day. He cites examples which show the rapid decline in weight in the weeks with one fast day. The aim on this day is to eliminate every kind of fat and to restrict the carbohydrates to the lowest point, while yet filling the stomach and allowing plenty of water. In this way he found it possible to effect a cure in numerous cases of moderate obesity in which other methods had failed or had been carried out only with great difficulty. In mild cases fast days are superfluous, and in the very severe cases of constitutional obesity the outcome even with this is dubious.

Berliner klinische Wochenschrift.

May 4, XLV, No. 18, pp. 861-904.

60 *Stokes-Adams' Disease. E. de Renzi.
61 *Pains in Sternum. (Sternalschmerzen.) P. Hampeln.
62 *Idiopathic Osteopsathyrosis. A. Lipschütz.
63 Specificity of Precipitin Reaction in Syphilis and General Paralysis. W. Fornet and J. Schereschewsky.
64 Reliability of Serum Diagnosis of Syphilis in Ophthalmology. C. Cohn.
65 Hemolytic Reaction of Blood Serum with Cancer. (Hämolytische Reaktion des Blutserums bei malignen Geschwülsten.) W. Fischel.
66 The Guaiac Test for Occult Blood. (Guajakblutprobe.) J. Rothschild.
67 Ocular Tuberculin Reaction. (Conjunctivalreaktion.) F. Rosenbach.
68 Histologic Determination of Acidosis in Infants. (Acidose des Säuglings.) G. Tugendreich.
69 Reliability of Mollière's Methyl-Violet Reaction, as Test for Free Hydrochloric Acid in the Stomach. (Nachweis von freier Salzsäure im Magen.) Wasserthal.
70 Telephone for the Very Deaf. (Hörtelephone für Schwerhörige.) P. Lebram.

60. **Adams-Stokes Disease.**—De Renzi reports a case in detail with the essential symptoms of bradycardia and nervous attacks of syncope or convulsions. The pulse is only apparently slow, for there can be no doubt, he says, that the number of pulse beats is actually the double of what is supposed. The contraction of the auricles alone is not enough to induce perceptible pulsation in the peripheral vessels. The alternation between a vigorous and a feeble pulsation can be detected by close examination. The sphygmograph shows a slight rise between the two curves of the radial pulse. The nervous attacks are generally preceded by an exceptionally intense bradycardia. The bradycardia is permanent, uninfluenced by emotions, muscular exercise, change of position or drugs. All the circumstances which physiologically increase the pulse caused in his patient considerable dyspnea. There was also much increase in the blood pressure. Pulsus bigeminus is often observed in these cases, probably the result of the sluggishness of the systoles. The contraction of the ventricles, apparently simple, is the result of several combined muscular contractions. Signs of renal sclerosis were evident in several cases on record. The whole syndrome, he thinks, is due to meiopragia of the myocardium. It may even be said that universal meiopragia corresponds to diffuse arteriosclerosis. All the symptoms are easily explained by the lesion of the myocardium resulting from arteriosclerosis. On account of these changes the refractory phases of the heart grow longer, and the peristaltic movement proceeding from the auricle is transmitted to the ventricle with longer and longer intervals. In conclusion de Renzi cites an Italian, G. Paladino, who described in 1876 the bundle of fibers which is generally called the bundle of His.

61. **Pain in the Sternum.**—Hampeln has encountered 12 cases of pains in the sternum, sometimes due to a congenital weakness or tenderness, or to gouty deposits, or they were purely neuralgic or ostealgic in character. Slight traumatic influences were a factor in some cases. Removal of opportunity for external injury, supplemented by tonic and soothing measures, generally brought relief. Repose, baths, bromids and a plaster may all be useful.

62. **Idiopathic Fragility of the Bones.**—Lipschütz describes a case in detail with the Roentgen findings, and discusses the relations between this osteopsathyrosis and fetal affections of the skeleton.

Correspondenz-Blatt für schweizer Aerzte, Basle.

March 1, XXXVIII, No. 5, pp. 137-168.

71 *Acetonuria in Diabetes mellitus. C. Stäubli.
72 Seasons and Moods. (Disposition und Gezeiten.) H. Brunner.
73 *Eczema an Infectious Process. Schwenter. Commenced in No. 4.
74 *Vibratory Massage in Ineffectual Labor. (Wehenschwäche und Vibrationsmassage.) W. Cubasch.

March 15, No. 6, pp. 169-200.

75 *Epidemic of Scarlet Fever in Home for Epileptics. A. Mæder.
76 Opsonins. S. Stocker.
77 Dangers of Cocain in Corneal Lesions. (Kokain bei Hornhautaffektionen.) A. Dutoit.

April 1, No. 7, pp. 201-232.

78 Simple Gymnastic Apparatus for the Knee. (Bewegungsapparat für das Kniegelenk.) A. Haslebacher.

April 15, No. 8, pp. 233-280.

79. Ocular Tuberculin Reaction. M. Burckhardt.
80 *Six Cases of Intestinal Invagination. (Darminvagination.) Hæberlin. Commenced in No. 7.

May 1, No. 9, pp. 281-312.

81 Cancer Fever. (Carcinomfieber.) R. Stierlin.
82 *Abdominal Purpura. E. Döbeli. Commenced in No. 7.

71. **Acetonuria in Diabetes.**—Stäubli describes a few cases of diabetes with intense acidosis, to illustrate the benefits of reduction of carbohydrates. The better utilization of the sugar formed in the intermediate metabolism has a favorable influence on the acidosis, and the proportion of acidosis bodies in the urine grows less. Treatment of diabetes under constant control of the quantitative conditions of elimination requires tedious research and a well-equipped laboratory, but it decides the question as to the advisability of reduction of carbohydrates in severe cases without fear of evil consequences. The results in many cases will repay the effort made. All his patients took large doses of sodium bicarbonate and it seemed to promote the elimination of nitrogen.

73. **Eczema.**—Schwenter reviews the various measures in vogue for treatment of eczema, and remarks that the curative action of sulphur in certain forms and of tar preparations in others indicates that they act on the causal germ. Prolonged application of alcohol will destroy all the cocci on the skin, and alcohol sprays and alcohol dressings are, therefore, useful. The eradication of the eczema parasites in their remotest nooks is an important part of rational treatment, and is the only means of preventing relapses. Special attention must be paid to the hair follicles, the lanugo hairs, the crevices around the nails and all the folds of the skin and parts subject to friction. The previous sites of eczema must be cleansed daily; if dry, they should be rubbed with some mild disinfecting salve; if greasy, alcoholic solutions and soaps should be given the preference.

74. **Arrested Labor and Vibratory Massage.**—Cubasch reports three cases of protracted labor in which forceps seemed indicated at once, but before resorting to this he applied a small vibrator to the abdomen for one minute. The uterus at once responded with a weak contraction, followed soon by stronger ones. The vibrator was applied again a few times, each during a contraction, and the head emerged in from twenty to forty-five minutes. The hemorrhage was unusually slight and the uterus seemed particularly free from any tendency to flabbiness.

75. **Scarlet Fever in an Institution.**—Mæder observed twenty-four cases of scarlet fever in a home for epileptics where the course of the epidemic could be closely watched. This experience shows the importance of healthy germ carriers in transmission of the disease; and also that it is contagious in all stages, and that abortive forms play a large part in the spread of an epidemic. Every mild febrile affection, as well as every sore throat, is suspicious during an epidemic, and should be isolated.

80. **Intestinal Invagination.**—Hæberlin reports six cases, two in infants. Colic-like and vague pains, moderate meteorism and exaggerated peristalsis were the principal features. Blood was found in the stools in only one case; it is generally present in about three-fourths of the cases. Daily stools were the rule in some, and diarrhea was common. A tumor could be palpated in five cases; it was kidney-shaped in one. In the more chronic forms the palpation findings were less positive. Operative treatment should be based on the same principles as for hernia. In two of his cases surgical intervention came too late. One of the patients, a girl of 3, was operated on the fourteenth day after the first signs of illness, and the trouble was found to be invagination of Meckel's diverticulum. The child promptly recovered after excision of the diverticulum.

82. **Abdominal Purpura.**—Döbeli found that chronic intussusception of the sigmoid was the primary cause of a severe, chronic, typical case of Henoch's purpura in a boy of 8. He reviews the literature and his reasons for assuming that chronic obstipation was the cause of the invagination. He succeeded in curing the child by measures directed solely against obstipation. He introduced an ordinary stomach tube into the intestine for about twelve inches from the anus and poured in nearly a quart of warm oil. As the intestines were evacuated the swelling of the joints and back of the hand and foot and the patches of purpura vanished, as also the pains. No purgatives were given by the mouth, but small glycerin enemas were given daily thereafter. The diet was the ordinary nourishing mixed menu with exclusion of coarse vegetables and raw fruits. By these means the tendency to constipation was cured, and as the child increased in weight the tendency to reproduction of the invagination was also combated. If at every attack the invagination can be reduced by high injections of water, oil or air, as in this case, surgical intervention is unnecessary. As the patient takes on fat the relaxed mesentery becomes stronger. He does not advise forced feeding, for fear of overtaxing the intestines, but he warns not to keep the patient on gruels and milk alone, from dread of starting an attack of purpura and colic. The debility must be cured before conditions will change for the better. He summarizes from the literature twenty-two cases, which sustain his assumption that abdominal purpura is merely a symptom-complex secondary to some affection of the stomach or intestines in predisposed individuals. The prognosis depends on the curability of the underlying affection and the congenital disposition to ready hemorrhage. The purpura generally vanishes spontaneously when the primary trouble is cured, but gelatin may be needed in some cases.

Deutsche medizinische Wochenschrift, Berlin.

April 30, XXXIV, No. 18, pp. 769-808.

83 Appendicitis. (Epityphlitis.) D. v. Hansemann. Id. Sonnenburg. Id. Kraus.
84 *Renal Diabetes. (Nierendiabetes.) M. Bönniger.
85 Physiology of Suprarenals and Pupil-dilating Substances in the Blood, etc. (Physiologie der Nebennieren.) R. Ehrmann.
86 Fracture of Base of Skull. (Nachweis der Basisfraktur.) A. Peyser.
87 Means for Roentgen Dosage. (Die Gaiffe-Walterschc Milliampère-Methode als Mass der Bestrahlungsenergie.) C. Schindler.
88 Unreliability of Ocular Tuberculin Reaction. (Ophthalmoreaktion.) C. Klieneberger.

84. **Renal Diabetes.**—Bönniger reports the case of a man of 37, a hard drinker, with 2 per cent. sugar in his urine. The sugar disappeared from the urine during an attack of delirium tremens, but returned afterward. The glycosuria was not influenced in the least by refraining from carbohydrates nor by their copious intake. The proportion of sugar in the blood was always remarkably low. The glycosuria probably began about three years ago; the case has been under his observation for nine months; he classifies it as a typical specimen of renal diabetes.

Deutsche Zeitschrift für Chirurgie, Leipsic.

April, XCIII, No. 1, pp. 1-100.

89 *Conservative Methods of Operating for Sarcoma of the Long Bones. Borchard.
90 Injury of the Median Nerve as Complication of Typical Fracture of the Radius. Blecher.
91 *Constriction Hyperemia in Treatment of Gonorrheal Arthritis of the Large Joints. (Stauungshyperämie bei Arthritis gonorrhoica.) W. Baetzner.
92 *Postoperative Hemorrhage in Digestive Tract. (Postoperative Magen-Darmblutungen.) Thelemann.
93 *Subcutaneous Laceration of the Spleen and Its Treatment. (Subkutane Milzzerreissung.) Lotsch.

89. **Sarcoma of the Long Bones.**—Borchard's seven cases confirm the assumption that even decidedly malignant forms of sarcoma of the long bones can be cured by a conservative operation. The microscopic findings are of subordinate importance; the main point is the macroscopic extent of the growth. Only when the soft parts are so involved that the nutrition of the limb will suffer, is a mutilating operation indicated. The age is of little importance. He recommends a trial of conservative methods. By resecting far into sound tissue, applying plastic procedures, with sufficient patience, results can be obtained as good as after mutilating operations in respect to a permanent cure and surpassing them in the functional results. Another point in favor of conservative treatment is that patients will consent much earlier to intervention of this kind.

91. **Constriction Hyperemia in Gonorrheal Inflammation of the Large Joints.**—Baetzner reports from Bier's clinic forty cases of gonorrheal arthritis treated by passive hyperemia. He gives the details of each case and states that this simple, inexpensive method of treatment is an essential advance in the management of such cases. It is distinguished by the prompt relief of the pain, while it allows early mobilization of the affected joints, and the whole clinical course is comparatively much milder. The duration of the affection is abbreviated, and the functional results are better than with other technics. No ankylosis was observed in any instance. The best results were obtained in the most recent cases, but, unfortunately, the affection is seldom differentiated early, usually not until after the failure of salicylates.

92. **Postoperative Gastrointestinal Hemorrhage.**—Thelemann reports two cases of intestinal hemorrhage, both occurring the thirteenth day after the laparotomy. The loss of blood was successfully combated in each case by daily saline infusion, with styptics internally. The literature on the subject of postoperative thrombosis is reviewed.

93. **Subcutaneous Laceration of the Spleen.**—Lotsch describes a set of symptoms observed in four cases. Immediate laparotomy is the only rational treatment, and splenectomy is the preferable technic. Malarial and typhoid infection predispose to laceration. The principal signs are extreme anemia, rigidity of the abdominal walls and tympany, and in the spleen region and left upper quadrant there is a circumscribed area of intense dulness, the outlines of which do not alter with change of position. Vomiting does not belong to the pure symptom-complex and suggests injury of adjacent organs, of the intestines in particular.

Medizinische Klinik, Berlin.

May 3, IV, No. 18, pp. 649-692.

94 *Inflamed Hemorrhoids. (Der entzündete Hämorrhoidalknoten und seine Behandlung.) E. Payr.
95 *Climacteric Intestinal Disturbances. (Darmerkrankungen im Klimakterium.) G. Singer.
96 Neuroses in Children. (Angstneurose der Kinder.) W. Stekel.
97 Importance of Nasal Affections in Sympathetic Ophthalmia. C. Ziem.
98 Antitoxin Treatment of Hay Fever and Anaphylaxis. Albrecht.
99 Binding of Complement with Extracts of Syphilitic Organs in Non-syphilitic Affections. H. Much and F. Eichelberg.

94. **Treatment of Inflamed Hemorrhoids.**—Payr has found incarceration of internal hemorrhoids less frequent than primary inflammatory processes in the external and intermediate nodules. Thrombosis is frequently the first sign of

trouble, and the clot may decay or become organized and the nodule become transformed into a connective tissue mass, or there may be suppuration. Hot sitz baths three times a day, each twenty to thirty minutes long, may give relief; the water should be kept at a constant temperature of 40 C. (104 F.). Repose aids the cure. Intestinal catarrh favors recurrence. Operative treatment may be by excision or directed solely against the inflammatory thrombosis, slitting the nodule and evacuating the clot. He applies cocain and suprarenal extract on cotton to the adjoining sound mucous membrane, after which he injects into the central edge of the thrombosed nodule a little cocain solution. He then slits the nodule on a radial line or makes an incision around the outer base of the nodule. The contents of the nodule are then scooped out and he plugs the cavity with an iodoform-cocain powder. This filling is left for several days and he has never had any complaints of after pains. The results have been satisfactory during the last seven years with twelve patients thus treated.

95. **Intestinal Disturbances in the Menopause.**—Singer believes that intestinal disturbances form the main contingent of climacteric manifestations. Obstinate constipation is most frequent and the ordinary measures fail of effect. Pronounced meteorism is often observed and may simulate a pregnancy. The stools frequently contain blood and the mucosa of the rectum displays a tendency to capillary parenchymatous hemorrhage. There may be symptoms of irritable bladder. Other climacteric phenomena may give the clue to the puzzling intestinal disturbances. The combination of functional intestinal affections with severe disturbances in the vasomotor domain suggests that the homologous symptoms are the work of the sympathetic system. The loss of the internal secretion of the ovary is the primary cause, and ovarian therapy may be indicated. He has not observed any benefit from it, however, in respect to these intestinal manifestations.

Mitteilungen aus den Grenzgebieten der Med. und Chir., Jena.

XVIII, No. 5, pp. 745-898. Last indexed May 9, p. 1573.

100 *Fracture of the Foot as Initial Symptom in Tabes. Trömner and Preiser.
101 *Chronic Inflammatory Affection of Lachrymal and Salivary Glands. (Mikuliczsche Krankheit.) Külbs.
102 Comparative Research on Secretory Functioning of Both Kidneys in a Case of Exstrophy of the Bladder. (Sekretorische Leistungen beider Nieren.) E. Allard.
103 *Operative Treatment of Obesity. (Fettleibigkeit.) C. Schulz.
104 *Stone Formation in the Pancreas. (Steinbildung im Pankreas.) W. Rindfleisch.
105 *Operative Treatment of Cirrhosis of the Liver. (Klinische Beiträge zur Talma-Drummondschen Operation.) V. Lieblein.
106 When Is Operative Treatment Indicated in Chronic Affections of the Lungs? L. Hofbauer.
107 Chronic Polyarthritis in Children. Dreesmann.
108 *Treatment of Falling Blood Pressure in Peritonitis. (Behandlung der peritonitischen Blutdrucksenkung mit intravenösen Suprarenin-Kochsalzinfusionen.) L. Heidenhain.
109 Importance for Surgery of Partial Paralysis of the Abdominal Muscles. (Partielle Bauchmuskellähmungen.) H. Leischner.

100. **Fracture of the Foot as Initial Symptom of Tabes.**—A man of 39, denying syphilis, abuse of alcohol and trauma, except for a slight misstep recently, found that his foot swelled the fourth day after the misstep, and then severe pain developed but soon subsided. He used the foot as usual for weeks, but the swelling increased, and the fracture proved to be the first sign of oncoming tabes. The slight trauma would not have fractured a normal foot. The lack of sensitiveness allowed him to use the foot for months with the unreduced and unhealed fracture. The case also shows the favoring influence of traumatism on the nervous degenerative process. It warns of the possibility of tabes in the etiology of all cases of fracture from inadequate cause in persons between 35 and 50. The further course of the tabes in the case reported showed that certain symptoms later gravitated to the injured limb.

101. **Mikulicz' Disease.**—Külbs reports a typical case of symmetrical chronic inflammation of the lachrymal and salivary glands, at first assumed to be mumps. The patient showed marked improvement under sodium iodid and inunction of mercurial ointment, although there was nothing to indicate syphilis. The autopsy findings after suicide showed typical Mikulicz's disease. In another case in a man of 45, his five brothers and two sisters, father and two grandchildren all showed more or less enlargement of both parotid glands, but it had never caused any disturbances.

103. **Operative Treatment of Obesity.**—Schulz has operated on two patients to relieve them of the excessive weight of fat in the pendent abdominal walls. He qualifies the operation as simple and harmless, and says that it deserves wide application. The wound is, of course, much longer than a laparotomy wound, but it is not deep, and the cushion of fat is shelled out readily. The weight of the flap of skin and fat removed was about seven and ten pounds in his cases. The only drawback to this operative treatment of obesity is the painfulness of the extensive abdominal wound at first.

104. **Calculi in the Pancreas.**—Rindfleisch has encountered three cases of stone formation in the pancreas at 2,000 autopsies; one case was diagnosed during life. In one case the pancreolithiasis accompanied cholelithiasis and cholecystitis; in another the primary trouble was arteriosclerotic cirrhosis of the pancreas, entailing severe diabetes. The presence of stones was unsuspected. He was unable to detect any special characteristic signs of pancreolithiasis.

105. **Talma-Drummond Operation.**—Lieblein reports three cases of cirrhosis of the liver with ascites in which he made an exploratory laparotomy and twelve others in which he performed the Talma operation. Three of the patients in the latter group were restored to health. The results are better, the earlier the operation is done. None of the patients was permanently cured whose ascites was due to peritonitis rather than to the cirrhosis. In peritonitis the fluid is an exudate; it is possible, he asserts, to determine by chemical tests whether the fluid obtained by puncture is an exudate or a transudate, and thus to differentiate the cases likely to be benefited. He thinks that the results to date of operative treatment in cirrhosis of the liver with ascites are not so brilliant as to justify complicated and dangerous operations. He operated successfully in one case with existing nephritis.

108. **Treatment of Impending Collapse in Peritonitis.**—Heidenhain seeks to prevent or arrest a fall in the blood pressure by intravenous infusion of about a quart of salt solution, to which a few drops of a 1 to 1,000 solution of suprarenal extract have been added; he repeats this infusion once or twice as needed. He describes his experimental research and clinical experience in this line with twenty cases of severe peritonitis and one of pneumonia. His aim is to combat the vasomotor paralysis responsible for the decreasing blood pressure. He does not regard the heart as responsible for the lower blood pressure, but only the vasomotor center in the medulla oblongata. He ascribes to the suprarenal-saline infusion before and after the operation the favorable outcome in a number of otherwise desperate cases. He gives a series of pulse tracings, taken before and after the infusions, showing the benefit derived, the tonometer not having been moved in the interim. His experience to date with this technic includes 1 case of pneumonia, 14 of appendicitic peritonitis, 2 of diffuse traumatic peritonitis, 1 of puerperal, and 2 of gastric peritonitis. The peritonitis was so severe that enterostomy was necessary in 8 out of the 20 cases, but 13 of the patients recovered. The infusions are effectual when the vasomotor center is injured and weak, but not completely paralyzed. In the latter case the center is unable to react to any stimuli. In some of the cases the apparently moribund patient improved under the infusion to such an extent that an operation then first became possible. One or two more infusions later sustained the patient and recovery followed.

Münchener medizinische Wochenschrift.

April 28, LV, No. 17, pp. 889-944.

110 Physiologic Parallel Research on Man and Animals. (Physiologische Parallelversuche an Mensch und Tier.) E. Weber.
111 *New Viewpoints for Treatment of Suppurating Processes. (Neue Gesichtspunkte bei der Behandlung eitriger Prozesse.) E. Müller and A. Peiser.
112 Improvement in Technic of Disinfection of Skin. (Verbesserung und Vereinfachung der Hautdesinfektion.) M. Brunn.

113 Artificial Foods and the Specific Precipitin Tests. Diätetische Nährpräparate vor dem Forum der spezifischen Präzipitation.) T. Horiuchi.
114 Alleged Meat Juice Preparations. (Fleischsaft "Puro.") L. Geret.
115 Treatment of Appendicitis. (Perityphilitis-Therapie.) A. Albu.
116 *Dietetic Treatment of Heart Disease and Obesity according to Karell's technic. (Bedeutung der Karellkur.) L. Jacob. Commenced in No. 16.
117 Direct Visual Inspection of Stomach. (Direkte Besichtigung der Magenschleimhaut.) M. Riehl.
118 Dosage of Actinic Rays. (Neues Prüfungsverfahren zum Vergleich aktinischer Strahlenquellen.) H. Axmann.
119 Technic of Roentgen Photography. F. Davidsohn.
120 Obstetric Bandage to Promote Delivery. (Zur Erleichterung der Geburten.) S. Herzberg.
121 Improved Hypodermic Syringe. (Verbesserung der Injektionsspritzen mit eingeschliffenem Glaskolben.) Faulhaber.

111. New Viewpoints for Treatment of Suppurating Processes.—Müller proposes a method of treating suppurating processes by supplying from without an antiferment to counteract the ferment naturally in the suppurating focus. When a drop of pus from an active abscess is placed on solidified serum it eats out a hole while nothing of the kind occurs with pus from a cold abscess. This is the proteolytic test for differentiation of tuberculous pus. The artificial increase of the supply of antiferment is one of the factors in hyperemic treatment, but far more extensive action can be obtained by direct irrigation of the pus cavity with fluids containing large quantities of antiferment. Pre-eminent among such fluids are human blood serum and fluids obtained by puncture from the thoracic and abdominal cavities. Such fluids can be sterilized by filtering and they contain, besides, nourishing and protecting substances and they attract phagocytes to the spot. Peiser has been trying this antiferment treatment in the clinic and he found in 100 cases that the theoretical premises were realized in practice. All acute processes leading to abscess formation proved amenable to this method of treatment. The best results were obtained with smooth-walled cavities, as the antiferment acts only by direct contact. He prefers to obtain the antiferment by venesection, thus using the patient's own blood serum; less than 200 c.c. of blood is ample. This physiologic method of treatment may be combined with constriction hyperemia. He gives a number of case reports to show the prompt curative effect of this method of treatment.

116. Dietetic Treatment of Severe Heart Disease and Obesity.—Jacob is assistant at Lenhartz's clinic at Hamburg, and he here reports in detail the experiences with twenty cardiac patients put on the Karell diet. The results were encouraging. When this failed, there were usually severe disturbances which rendered it impossible for the heart to recuperate, even under the most favorable conditions. Autopsy always explained the reasons for the failure of the Karell course in such cases. Administration of digitalis first may enhance its effect, or this first may enhance the effect of digitalis, and calomel may supplement the Karell course to advantage by its action on kidneys and intestines, the ascites vanishing and the liver subsiding to normal size. T. Karell published the technic of this course of dieting in 1868 (*Arch. gén. de méd.*) and Lenhartz has been using it for fifteen years in treatment of chronic bronchitis and emphysema and of heart affections causing symptoms of congestion, especially in the obese. Jacob declares that the results have been remarkable in many instances. The first 6 days the patient is given nothing but 200 c.c. (7 ounces) of milk, boiled or raw, hot or cold, at 8 and 12 a. m. and 4 and 8 p. m. No other fluids or food are allowed during this first week. During the following 2 to 6 days one egg is allowed also at 10 a. m., and a little zwieback at 6 p. m., then two eggs and bread, then a little chopped meat, vegetables or rice pudding, until by the end of the twelfth day the ordinary diet can be resumed, retaining the milk, or tea as its substitute, without allowing the total amount of fluids a day to surpass 800 c.c. (28 ounces) during the entire month. The bowels must be kept open.

Wiener klinische Wochenschrift.

April 30, XXI, No. 18, pp. 641-674.

122 *Spasm of the Larynx of Parathyroid Origin. (Parathyreogener Laryngospasmus.) F. Pineles.
123 Anaphylactic Phenomena During Immunization with Toxins of Typhoid and Paratyphoid Bacilli. R. Kraus and R. v. Stenitzer.
124 Research on Serum Diagnosis of Syphilis. S. Gross and R. Volk.
125 Antibodies in Cases of Tumors. (Antikörper bei Tumoren.) E. Weil and H. Braun.
126 Specific Nature of Wassermann Syphilis Reaction. H. Elias and others.
127 Care of the Umbilicus. (Nabelversorgung.) A. Feitler.

122. Spasm of the Larynx of Parathyroid Origin.—Pineles has observed four cases of postoperative tetany and spasm of the larynx after goiter operations. He knows of only two such cases on record. One of his patients has been free from all symptoms except the spasmodic contraction of the vocal cords for several months. The Erb and Chvostek signs were prominent in all his cases. He has observed four others in which the spasm of the larynx accompanied idiopathic tetany, out of nineteen cases of idiopathic tetany. Two infants suffered from the vocal cord spasm, both mothers having tetany. The younger the individual, the greater the tendency in tetany to laryngeal spasm. He encountered it in adults only in the above eight out of one hundred and twenty-two cases of tetany.

Zentralblatt für Chirurgie, Leipsic.

April 25 XXXV, No. 17, pp. 521-552.

128 *Rovsing's Symptom. A. Hoffmann. Id. T. Rovsing.

May 2, No. 18, pp. 553-576.

129 History of Technic of "First Insensibility to Ether." (Geschichte des Aetherrausches.) M. Hirsch.
130 Diagnosis and Treatment of Fistulous Passages. E. G. Beck.
131 Supporting Apparatus for Bandaging Leg without Assistance. P. Manasse.
132 Automatic Suction Syringe. (Selbsttätige Saugspritze.) Neuhaus.
133 Trauma and Carcinoma. Lanz.

128. See abstract in THE JOURNAL, Nov. 30, 1907, page 1882.

Zentralblatt für Gynäkologie, Leipsic.

May 2, XXXII, No. 18, pp. 577-594.

134 *Modified Operation for Rectovaginal Fistula. (Neue Modifikation in der operativen Behandlung einiger Mastdarm-Scheidenfisteln.) D. v. Ott.
135 Determination of Pale Spirochete in Congenital Syphilis. C. Grouven.
136 Diagnosis of Ovarian Teratoma from Material Passed Through the Anus. E. Unterberger.
137 *Serum of Thyroidectomized Sheep in Osteomalacia. (Antithyreoidin Moebius bei Osteomalakie.) R. Hoffmann.

134. Treatment of Rectovaginal Fistula.—A case is described by von Ott in which he first drew down the upper lip of the fistula of the rectum and sutured it to the freshened lower lip, thus shutting off the rectum with a suture with two tiers. The freshened edges of a vesicovaginal fistula were then sutured in the same way. The space left by the repair of the rectal wall left an opening into the pouch of Douglas which was not closed, but drained with gauze. This opening into the peritoneum allowed the edges of the rectal fistula to be mobilized and contributed to the success of the operation, as none of the ordinary technics was applicable on account of extensive cicatricial contracture.

137. Serum Treatment of Osteomalacia.—Hoffmann comments on the manifold analogies between osteomalacia and exophthalmic goiter. In the former the ovary, in the latter the thyroid, is functioning to excess. In the former ovariotomy, in the latter strumectomy, has a curative action. Both are pre-eminently affections of the female sex, and their effect on the phosphorus metabolism seems to be identical. The secretory activity of the ovary seems to rise and fall with that of the thyroid. The thyroid seems to be predominant, probably on account of its influence on the blood pressure. He knows of no case of osteomalacia with exophthalmic goiter developing later, but many cases are on record in which osteomalacia or a tendency thereto developed in the course of exophthalmic goiter. For these and other reasons he thinks that the serum of thyroidectomized sheep is theoretically indicated in osteomalacia, and he reports a case in which it was given with striking success. His patient was a x-para of 45 with osteomalacia of about six years' standing, able to walk only a few steps with two canes. In less than two months under the serum treatment she was restored to comparative health.

Gazzetta degli Ospedali, Milan.

April 5, XXIX, No. 41, pp. 425-440.

138 Albuminous and Fatty Granulations of the Leucocytes in Tuberculosis. M. V. Carletti.
139 Congestion of the Apex Simulating Tuberculosis. S. Lavagna.
140 Leucocytosis and Iodiphilia in Scarlet Fever. A. Magi.
141 Pathogenesis of Adiposis. G. Mondin.
142 Hematuria Constant in Epidemic of Measles. (Ematuria come complicazione della rosolia.) F. Bambace.

April 12, No. 44, pp. 457-472.

143 Ocular Tuberculin Reaction. (Oftalmoreazione.) G. Finzi.
144 Three Cases of Appendix in Hernia. M. Pavesi.

April 19, No. 47, pp. 489-504.

145 *Hospital Organization and Hygiene. (Organizzazione technica degli ospedali in rapporto coll'igiene ospitaliera.) L. Baldassari.
146 *Intravenous Injections of Magnesium Chlorid in Chorea. E. Calcaterra.
147 Inguinal Hernia in Front of the Peritoneum. (Ernia inguinoperitoneale.) G. Negroni.
148 Constriction Hyperemia after Resection of Knee. (Cura iperemizzante alla Bier negli operati di resezione del ginocchio.) G. Polini.

April 26, No. 50, pp. 521-536.

149 *Thermostable Substances, Soluble in Alcohol, in Extracts of Organs, and Their Significance. A. Barlocco.
150 Diplococcus Precipitins in the Blood in Pneumonia. A. Barlocco.
151 *Local Action of Bile and Sodium Glycocholate on the Blood Vessels. A. Berti.

145. Hospital Management and Hygiene.—Baldassari concludes his article with the wish that a journal could be published entirely devoted to questions relating to the administration, construction and management of hospitals. He states that in Italy there is an average of one hospital, with an average of 60 beds, to 25,177 inhabitants, but in certain departments only one to 70,000 or more.

146. Intravenous Injections of Magnesium Chlorid in Chorea.—Calcaterra reports excellent results in two cases of chorea from intravenous injections of 1 or 2 c.c. of a 60 per cent. aqueous solution of magnesium chlorid.

149. Research on Serum Hemolysis.—Barlocco has been studying the thermostable and soluble substances found in extracts of organs, both normal and under the influence of toxins, and has obtained interesting results that may throw light on the hemolytic blood test, etc.

151. Local Action of Bile and Sodium Glycocholate on the Blood Vessels.—Berti's experimental research has demonstrated that these two substances have an analogous action on the blood vessels. Small doses cause a moderate dilatation of a certain duration, but in large doses they induce intense vasoconstriction.

Policlinico, Rome.

April 26, XV, Practical Section, No. 17, pp. 517-548.

152 Cytologic Research on the Exudate in the Ocular Tuberculin Reaction. P. Gallenga and P. Ciuffini. Id. G. Baglioni.

April, Surgical Section, No. 4, pp. 145-192.

153 *Transplantation of Muscles. (Trapianti muscolari.) R. Caminiti and G. Carere.
154 Effects of Ablation of the Muscular Tunic of the Small Intestine in the Dog. (Ablazione delle tuniche muscolari dell' intestino tenue nel cane.) V. Nicoletti.

153. Transplantation of Muscles.—When it is impossible to treat paralysis by transplantation of tendons, it may be practicable to transplant a muscle, and the experiments related by Caminiti and Carere prove the feasibility of implanting a stretch of muscle taken from another animal. In experiments on 20 dogs the results were positive in 11, even to restoration of normal function. The conditions for success seem to be careful hemostasis, the use of fresh pieces of muscles and respecting the vessels and nerves of the muscle on which the transplantation is made as the vitality of the piece depends on the rapid re-establishment of the circulation through it. Another important point is to increase the area of surface contact. This can be done by cutting the muscle obliquely, or better still, by cutting it in steps. Their experience demonstrates that there is never complete regeneration of striated muscular tissue; traumatic defects are always repaired with connective tissue.

Sei-i-kwai Medical Journal, Tokyo.

January, XXX, No. 1, pp. 243-250.

155 Carcinoma of Colon and Fever in Cancer. T. Kanamori.

March, No. 3, pp. 261-272.

156 Changes in the Jaw from Adenoid Vegetations Among the Japanese. K. Sakai. Commenced in No. 2.

Books Received

Acknowledgment of all books received will be made in this column and this will be deemed by us a full equivalent to those sending them. A selection from these volumes will be made for review, as dictated by their merits, or in the interests of our readers.

THE DEVELOPMENT OF THE LEISHMAN-DONOVAN PARASITE IN CIMEX ROTUNDATUS. Second Report. By Captain W. S. Patton, M.B., I.M.S. (on Special Duty). Scientific Memoirs by Officers of the Medical and Sanitary Departments of the Government of India. Pp. 25, with illustrations. Cardboard. Price, 38 cents. Calcutta: Superintendent of Government Printing, India, 1907.

GENERAL MEDICINE. Vol I, of the Practical Medicine Series. Edited by Frank Billings, M.S., M.D., Head of the Medical Department and Dean of the Faculty of Rush Medical College, Chicago, and J. H. Salisbury, A.M., M.D., Professor of Medicine, Chicago Clinical School. Pp. 408, with illustrations. Cloth. Price, $1.50. Series 1908. Chicago: The Year Book Publishers.

THE SANITATION OF RECREATION CAMPS AND PARKS. By Dr. Harvey B. Bashore, Medical Inspector for Pennsylvania Department of Health. First Edition. Pp. 109, with illustrations. Cloth. Price, $1.00. New York: John Wiley & Sons. London: Chapman & Hall, 1908.

GENERAL SURGERY. Vol. II, of the Practical Medicine Series. Edited by John B. Murphy, A.M., M.D., LL.D., Professor of Surgery in Rush Medical College. Pp. 614, with illustrations. Cloth. Price, $2.00. Series 1908. Chicago: The Year Book Publishers.

TASCHENBUCH DER PHYSIOLOGIE. By Prof. Dr. Med. H. Boruttau, Berlin. Vols. I and II. Paper. Price, $6.00 per set. Leipzig: Dr. Werner Klinkhardt, 1908.

THE AMERICAN ASSOCIATION OF MEDICAL MILK COMMISSIONS. Proceedings of First Annual Session Atlantic City, June 3, 1907. Pp. 117. Paper.

THIRTEENTH ANNUAL REPORT OF THE SETON HOSPITAL. Spuyten Duyvill Parkway, New York City, 1907. Pp. 58, with illustrations. Paper.

SCIENTIFIC NUTRITION SIMPLIFIED. By Goodwin Brown, A.M. Cloth. Pp. 200. Price, 75 cts. New York: Frederick A. Stokes Co.

ANNUAL REPORT of J. M. Rush Jermon, Coroner of the County of Philadelphia, Pennsylvania, for the Year 1907. Pp. 16. Paper.

DOCUMENTS IN MATTER OF QUARANTINE AGAINST YELLOW FEVER IN CUBA. Pp. 43. Paper.

NEW PATENTS.

Recently granted patents of interest to physicians.

885435. Disinfecting apparatus. T. A. Clayton, Paris, France.
885444. Mixing spoon. A. W. Cram, Haverhill, Mass.
885027. Atomizer. W. von Dohn, Berlin, Schoneberg, Germany.
885454. Feed-bag. F. A. Donnelly, Bayonne, N. J., and J. E. Blanthorn, Brooklyn.
885329. Invalid hammock lift and turner. J. J. Ellis, Portland, Oregon.
885243. Orthopedic operating table. G. W. Haas, Los Angeles.
885339. Adjustable crutch. A. S. Hargrove, Memphis, Tenn.
885048. Box or holder for sticking plaster. C. Hoffmann-Pinther, Hameln-on-the-Weser, Germany.
885073. Hair tonic. A. and J. Newcom, Terrell, Texas.
885388. Invalid support. F. D. Sickles, Maumee, Ohio.
885196. Antisnoring shield. C. P. Steil, Milwaukee.
885307. Invalid appliance. G. H. Whaley, Maysville, Ky.
886209. Eye shield. G. E. Henry, Philadelphia.
885999. Urethral syringe. J. H. Hoseason, Manchester, Eng.
885763. Physical laboratory apparatus. L. E. Knott, Boston.
886075. Device for cleaning capsules. J. P. Remington, Philadelphia.
887032. Ophthalmoscope. H. L. De Zeng, Philadelphia.
886772. Apparatus for testing eyes. R. Dodge, Middletown, Conn.
886599. Truss. J. Habenicht, Hanover, Germany.
886512. Retinoscope, ophthalmoscope and the like. C. C. Inskeep, Ottumwa, Iowa, and E. and C. S. Gowland, Croydon, Eng.
886984. Massaging device. K. C. Jopling, Memphis, Tenn.
886522. Mouth speculum. N. W. Kyle, Colfax, Ill.
886881. Soda fountain. H. K. Smith, Union, S. C.
886443. Vibrator. E. M. Tormin, Newton, Mass.
887074. Surgical screw-bolt. A. Depage, Brussels, Belgium.
887389. Flexible corrective brace and brace-frame. G. W. Haas, Los Angeles, Cal.
887328. Electric vibrating massage machine. A. T. Hoevet, New York.
887645. Antiseptic lining of talking and hearing tubes for telephones. H. Jankelowitz, Gera, Germany.
887200. Abdominal supporter and truss. B. F. Lacy, Pekin, Ill.
887482. Electrocosmetic face-mask. G. C. Lammers, Oakland, and S. Bennett, Alameda, Cal.
887666. Electric water-purifier. J. F. Lester, New York.
887130. Sterilized catgut thread. H. Schmidt, Bande, Germany.
887707. Disinfectant. M. Souvielle, Paris, France.
887563. Artificial ear-drum. G. H. Wilson, Louisville, Ky.
887450. Shirt-suspensory. W. S. Wootton, Roanoke, Va.
888144. Ear-trumpet. G. W. Cline, Amalie, Cal.
888393. Vaporizer. E. L. Dunning, Providence, R. I.
888397. Instrument for treating gonorrhea. J. A. Gault, Lancaster, Wis.
888398. Instrument for medicating the middle ear. J. A. Gault, Lancaster, Wis.
888104. Physicians' cabinet. C. H. Lind, Canton, Ohio.
887856. Chemical spraying nozzle. H. Sieben, Kansas City.
12794. Reissue, device for repairing fractured jaws. P. Stukey, Auburn, Ind.
887886. Surgical bandage. M. A. Willot, Roubaix, France.